# DUBLIN

# Aniversity Calendar,

FOR THE YEAR

1919-1920.

TO WHICH ARE ADDED

THE ORDINARY PAPERS SET IN THE YEAR 1918-1919.

Vol. I.



## DUBLIN:

Printed at the University Press,
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LONGMANS, GREEN, AND CO., LONDON, NEW YORK, AND BOMBAY.

1919

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# THE

# DUBLIN UNIVERSITY CALENDAR

1919-1920.

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VOL. I.

# THE PRESENT MODE OF PUBLISHING THE UNIVERSITY CALENDAR.

In Hilary Term, 1900, the Board arranged that in future the Calendar should consist of the following parts, and be published at the following dates:—

Vol. I., to be published during the Long Vacation, and to contain full information as to the Ordinary and Honor Courses in Arts and in the Professional Schools, and to contain also the Undergraduate Ordinary Examination Papers.

Vol. II., to be published as soon as possible after the 1st of January in each year, and to contain:—the results of Ordinary and Honor Examinations held in Arts, and in the Professional Schools, and the Degrees conferred, during the past year; the additions to date of the lists in Vol. III.; and the lists of—the Students on the College Books, the Senate, the University Electors, and the College Officers.

Vol. III., to be a Special Volume published from time to time as the Editor of the Calendar may think fit, and to contain the lists of Past Prizemen and Exhibitioners in Arts, and in the Professional Schools, of Graduates in Honors, of Honorary Degrees, of Degrees in the Professional Schools, of Provosts, Fellows, Scholars, Professors, Chancellors, Vice-Chancellors, and Representatives in Parliament, and of the Benefactors of Trinity College, all to be made as complete as possible. [This Volume was first published as Vol. II. in 1901, and was republished as Vol. III. in 1906 and in 1913.]

THE SUPPLEMENT TO THE CALENDAR, to be published as soon as possible after the 1st of January in each year, and to contain the Papers set at the Honor Examinations in Arts, and at the Examinations in the Professional Schools.

R. Cal

# THE DUBLIN

# University Calendar,

FOR THE YEAR

1919-1920.

TO WHICH ARE ADDED

THE ORDINARY PAPERS SET IN THE YEAR 1918-1919.

# VOLUME I.



## DUBLIN:

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PUBLISHERS TO THE UNIVERSITY.

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# Days of Examination.

## Michaelmas Term, 1919.

B.A. DEGREE EXAMINATION.

Wednesday and Thursday, December 17 and 18.

SUPPLEMENTAL FINAL FRESHMAN EXAMINATION.

Tuesday and Wednesday, October 21 and 22.

#### TERM EXAMINATIONS.

These Examinations last two days, and commence as stated below.

Junior Sophisters, Friday, October 17.

Junior Freshmen, Monday, October 13.

#### ENTRANCE EXAMINATIONS.

Autumn Entrance, Friday and Saturday, October 10 and 11.

Supplemental Entrance, Friday and Saturday, October 31 and November 1.

#### EXAMINATION FOR JUNIOR AND SCHOOL EXHIBITIONS.

Monday, Tuesday, Wednesday, Thursday, and Friday, October 13, 14, 15, 16, and 17.

#### CATECHETICAL EXAMINATIONS.

The Catechetical Examination of each class is held on the week-day following the Term Examination.

#### MODERATORSHIP EXAMINATIONS.

Examinations for Moderatorships last four days, and commence as stated below.

MATHEMATICS AND CLASSICS, Friday, October 10.

NATURAL SCIENCE, Monday, October 13.

MENTAL AND MORAL PHILOSOPHY AND MODERN LITERATURE, Friday, October 17.

Experimental Science, History and Political Science, and Legal and Political Science, Wednesday, October 22.

VOL. I.

### TERM PRIZE AND SPECIAL PRIZE EXAMINATIONS.

Students are required to give notice to the Senior Lecturer, at least one fortnight before the last day of Lectures in the preceding Term, of their intention to compete at any of the following Term Prize or Special Prize Examinations, and a programme will be published before the end of the Term. They are requested to state also at the same time whether they intend to present themselves at a Term Examination.

### Term Prize Examinations

Junior Sophisters. — Mathematics, Classics, Mental and Moral Philosophy, Experimental Science, Natural Science, History and Political Science, Modern Literature, Legal and Political Science, Celtic Languages.

Senior Freshnon. — Mathematics, Classics, Mental and Moral Philosophy, History, English Literature, French, German, Experimental Science, Natural Science, Old and Middle Irish.

Junior Freshmen. — Mathematics, Classics, Mental and Moral Philosophy, History, English Literature, French, German, Experimental Science, Natural Science, Old and Middle Irish.

## Special Prize Examinations.

Lloyd Exhibition, Bishop Law's Mathematical Premiums, Mullins Classical Exhibition, Vice-Chancellor's Latin Medals, Dunbar Ingram.

#### ENTRANCE PRIZE EXAMINATIONS.

Greek Prose, Friday, October 24.

Greek Verse, Saturday, October 25.

Latin Prose, Monday, October 27.

Latin Verse, Tuesday, October 28.

English Literature and Composition, Wednesday, October 29.

English History and Modern Geography, Friday, October 31.

French, Monday, October 20.

German, Saturday, October 18.

Hebrew, Friday, October 17.

Experimental Science, Friday and Saturday, October 24 and 25.

Natural Science, Tuesday and Wednesday, October 21 and 22.

Modern Irish, Thursday, October 23.

Scripture, Thursday, October 30.

## Hilary Term, 1920.

SUPPLEMENTAL B.A. DEGREE EXAMINATION.
Saturday and Monday, January 10 and 12.

SUPPLEMENTAL FINAL FRESHMAN EXAMINATION. Saturday and Monday, January 17 and 19.

#### TERM EXAMINATIONS.

These Examinations last two days, and commence as stated below.

Senior Sophisters, Saturday, January 10. Junior Sophisters, Wednesday, January 14. Senior Freshmen, Saturday, January 17. Junior Freshmen, Friday, January 23.

#### ENTRANCE EXAMINATION.

Wednesday and Thursday, January 21 and 22.

#### CATECHETICAL EXAMINATIONS.

The Catechetical Examination of each class is held on the week-day following the Term Examination.

#### TERM HONOR AND SPECIAL PRIZE EXAMINATIONS.

Students are required to give notice to the Senior Lecturer, at least one fortnight before the last day of Lectures in the preceding Term, of their intention to compete at any of the following Term Honor or Special Prize Examinations, and a programme will be published before the end of the Term. They are requested to state also at the same time whether they intend to present themselves at a Term Examination.

### Term Honor Examinations.

Senior Sophisters. — Mathematics, Classics, Mental and Moral Philosophy, Experimental Science, Natural Science, Legal and Political Science.

Junior Sophisters. — Mathematics, Classics, Mental and Moral Philosophy, Experimental Science, Natural Science, History and Political Science, Modern Literature, Legal and Political Science.

Senior Freshmen. — Mathematics, Classics, Mental and Moral Philosophy, History, English Literature, French, German.

Junior Freshmen.—Mathematics, Classics, History, English Literature, French, German.

Special Prize Examinations.

M'Cullagh Prize, Berkeley Medals, Wray Prize.

## Trinity Term, 1920.

Examinations for Scholarships in Classics, Mathematics, Experimental Science, Modern Languages, Natural Science, and History and Political Science, commence on Thursday, April 29.

SUPPLEMENTAL B.A. DEGREE EXAMINATION.
Thursday and Friday, April 15 and 16.

SPECIAL B.A. DEGREE EXAMINATION. Saturday and Monday, June 26 and 28.

SUPPLEMENTAL FINAL FRESHMAN EXAMINATION.
Friday and Saturday, April 23 and 24.

FINAL FRESHMAN EXAMINATION,
Wednesday, Thursday, and Friday, June 23, 24, and 25.

#### TERM EXAMINATIONS.

These Examinations last two days, and commence as stated below.

Senior Sophisters, Thursday, April 15. Junior Sophisters, Tuesday, April 20. Senior Freshmen, Friday, April 23.

Junior Freshmen, Wednesday, April 28.

Junior Freshmen Supplementing Hilary Examination, Monday, June 21.

### CATECHETICAL EXAMINATIONS.

The Catechetical Examination of each class is held on the week-day following the Term Examination.

#### ENTRANCE EXAMINATIONS.

Supplemental Entrance, Monday and Tuesday, April 26 and 27. Midsummer Entrance, Friday and Saturday, June 18 and 19.

EXAMINATION FOR SIZARSHIPS.

Monday and Tuesday, June 21 and 22.

## TERM HONOR AND SPECIAL PRIZE EXAMINATIONS.

Students are required to give notice to the Senior Lecturer, at least one fortnight before the last day of Lectures in the preceding Term, of their intention to compete at any of the following Term Honor or Special Prize Examinations, and a programme will be published before the end of the Term. They are requested to state also at the same time whether they intend to compete for Scholarship or present themselves at a Term Examination.

### Term Honor Examinations.

Senior Sophisters.—Mathematics, Classics, Experimental Science, Natural Science, Legal and Political Science.

Junior Sophisters. — Mathematics, Classics, Mental and Moral hilosophy, Experimental Science, Natural Science, History and olitical Science, Modern Literature, Legal and Political Science.

#### Term Honor Examinations-continued.

Senior Freshmen. — Mathematics, Classics, Mental and Moral Philosophy, History, English Literature, French, German.

Junior Freshmen.—Mathematics, Classics, History, English Literature, French, German.

### Special Prize Examinations.

Wall Biblical Scholarship, Biblical Greek, Ecclesiastical History, Ferrar Memorial, Ekenhead Scholarship, Political Economy, Old and Middle English, Hebrew, Chaldee, Syriac, Arabic, Persian, Hindustani, Sanskrit, Irish, Italian, Spanish, Old French and Provençal, Dompierre-Chaufepié.

### Michaelmas Term, 1920.

B.A. DEGREE EXAMINATION.

Wednesday and Thursday, December 15 and 16.

# SUPPLEMENTAL FINAL FRESHMAN EXAMINATION. Thursday and Friday, October 21 and 22.

#### TERM EXAMINATIONS.

These Examinations last two days, and commence as stated below.

Janiar Sophisters, Monday, October 18.

Junior Freshmen, Wednesday, October 13.

#### ENTRANCE EXAMINATIONS.

Autumn Entrance, Monday and Tuesday, October 11 and 12.
Supplemental Entrance, Monday and Tuesday, November 1 and 2.

#### EXAMINATION FOR JUNIOR AND SCHOOL EXHIBITIONS.

Wednesday, Thursday, Friday, Saturday, and Monday, October 13, 14, 15, 16, and 18.

#### CATECHETICAL EXAMINATIONS.

The Catechetical Examination of each class is held on the week-day following the Term Examination.

#### EXAMINATIONS FOR MODERATORSHIPS.

Examinations for Moderatorships last four days. A programme will be published before the end of Trinity Term.

#### TERM PRIZE AND SPECIAL PRIZE EXAMINATIONS.

Students are required to give notice to the Senior Lecturer, at least one fortnight before the last day of Lectures in the preceding Term, of their intention to compete at any of the following Term Prize or Special Prize Examinations, and a programme will be published before the end of the Term. They are requested to state also at the same time whether they intend to present themselves at a Term Examination.

### Term Prize Examinations.

Junior Sophisters. — Mathematics, Classics, Mental and Moral Philosophy, Experimental Science, Natural Science, History and Political Science, Modern Literature, Legal and Political Science, Celtic Languages.

Senior Freshmen. — Mathematics, Classics, Mental and Moral Philosophy, History, English Literature, French, German, Experimental Science, Natural Science, Old and Middle Irish.

Junior Freshmen. — Mathematics, Classics, Mental and Moral Philosophy, History, English Literature, French, German, Experimental Science, Natural Science, Old and Middle Irish.

## Special Prize Examinations.

Lloyd Exhibition, Bishop Law's Mathematical Premiums, Vice-Chancellor's Latin Medals, Dunbar Ingram.

#### ENTRANCE PRIZE EXAMINATIONS.

Greek Prose, Monday, October 25.

Greek Verse, Tuesday, October 26.

Latin Prose, Wednesday, October 27.

Latin Verse, Thursday, October 28.

English Literature and Composition, Friday, October 29.

English History and Modern Geography, Monday, November 1.

French, Wednesday, October 20.

German, Tuesday, October 19.

Hebrew, Monday, October 18.

Experimental Science, Monday and Tuesday, October 25 and 26.

Natural Science, Thursday and Friday, October 21 and 22.

Modern Irish, Saturday, October 23.

Scripture, Saturday, October 30.

## Supplemental List of Special Prizes in Arts.

- Alice Oldham Memorial Prize Awarded biennially from 1910, to women students from Alexandra College, at the Junior Sophister Prize Examinations in Michaelmas Term. Next competition in 1920.
- Biggs Memorial Prize—Awarded at the Examination for Junior and School Exhibitions to Students from Chesterfield School, Birr, or Galway Grammar School, or Portora Royal School, Enniskillen.
- Blake Scholarships—Essays to be sent in on or before November 1st every fourth year. Next Competition, November 1, 1920.
- Brooke Prizes—Awarded at the Moderatorship Examination in Classics and Mathematics.
- Charles Wilkins Memorial Prize—Awarded to the woman who answers best in Mathematics at the Examination for Junior and School Exhibitions, and at a Special Examination on Tuesday, October 21, 1919, and Thursday, October 21, 1920.
- Cluff Memorial Prize—Awarded at Junior Sophister Prize Examination in Modern History, Michaelmas Term.
- Dr. Henry Hutchinson Stewart Scholarship in English Literature—Awarded on the results of the Honor Examinations in English, French, and German Literature held in the Junior Sophister and Senior and Junior Freshman years.
- Ekenhead Scholarship—Every third year. Next Examination, in 1920. (See page 5\*.)
- Elrington Theological Prize—The Essays to be given to the Provost or Regius Professor of Divinity on or before 1st November in each year,
- Ferguson Memorial Prize—Awarded every third year. Next competition in 1922. Exercises to be sent to the Senior Lecturer not later than March 17.
- Fitz Gerald Memorial Scholarship—Awarded annually on sufficient merit being shown by the candidate in his experimental work and in his answering in the Physical part of the examination for Moderatorships in Experimental Science.
- Haslett Memorial Scholarship—Awarded at the Examination for Junior and School Exhibitions to students from St. Andrew's College, Dublin.
- Jellett Prizes for General Answering—Awarded at Final Freshman Examination held at the end of Trinity Term.

SUPPLEMENTAL LIST OF SPECIAL PRIZES IN ARTS-continued.

Kidd Scholarship-Every fourth year. Next Examination in 1921.

King Edward Prize—Awarded annually to the Respondent who answers best in the whole Course required at the Degree Examination in December.

Littledale Prize—Awarded at the Michaelmas Senior Freshman Prize Examination in English Literature.

Madden Prize-Awarded at the Fellowship Examination.

Marshall Porter Memorial Prize—Awarded at the Examination for Scholarships in Classics.

Michael Roberts Prize—Awarded at the Senior Freshman Mathematical Prize Examination, Michaelmas Term.

Moderatorship Prizes-Awarded at the Degree Examination.

Mullins Classical Exhibition—Every third year. Next examination in 1919.

Townsend Memorial Prize—Awarded on the results of the Honor Examinations in Mathematics in the Junior Freshman year.

Tyrrell Memorial Prize—Compositions to be sent in before the 1st of February in each alternate year. Next Competition in 1920.

Vice-Chancellor's Prizes for Greek, Latin, and English Composition—The subjects for the Vice-Chancellor's Prizes are announced (by a notice posted on the gate) on or before June 1. The compositions, with fletitious signatures, must be sent in to the Senior Lecturer on or before December 1.

Whately Memorial Prize in Political Economy—Every fifth year. Next competition in 1922. Essays to be sent in on or before September 30.

William Roberts Prize—Awarded at Senior Freshman Prize Examination in Classics, Michaelmas Term.

## Divinity School.

See end of section on Divinity School.

## Law School.

See end of section on Law School.

## School of Physic.

See end of section on School of Physic.

## Engineering School.

See end of section on Engineering School.

# Degrees in Music.

Friday, February 13, 1920. Saturday, June 26, 1920.

[Note.-Practical Test on the preceding week-day.]

# Examination for Diplomas in Education.

Friday and Saturday, October 24 and 25, 1919. Friday and Saturday, April 23 and 24, 1920. Friday and Saturday, October 22 and 23, 1920.

# Examination for Diploma in Economics and Commercial Knowledge.

Tuesday, Wednesday, Thursday, and Friday, April 6, 7, 8, and 9, 1920.

# Bours of Examination.

Examinations for Entrance, for Junior Exhibitions, for Sizar-ships, Ordinary Term Examinations (see "Course in Arts," § 15), Ordinary Catechetical Examinations, Term Honor Examinations, and Special Prize Examinations commence at 9.30 A.M.

Entrance Prize Examinations commence at 10 A.M.

For Moderatorship, Scholarship, and Fellowship Examinations, the hours are 9.30 A.M. to 12.30 P.M., and 2 P.M. to 5 P.M.

Honor and Prize Catechetical Examinations commence at 2 P.M.

# Days of Public Commencements for the conferring of Degrees.

Michaelmas Term, 1919.

Saturday, December 20, at 1 o'clock.

Hilary Term, 1920.

Tuesday, February 17, at 1 o'clock.

Trinity Term, 1920.

Monday, April 19, at 1 o'clock. Wednesday, June 30, at 1 o'clock.

Michaelmas Term, 1920.

Saturday, December 18, at 1 o'clock.

# Chapel of Trinity College.

The hours of Divine Service in the Chapel of Trinity College are as follow:—

Morning Service: 10 o'clock on Sundays; and 8.30 o'clock on week-days.

Evening Service: 7 o'clock on Sundays; and 7.45 o'clock on week-days.

Holy Communion: after Morning Service on Sundays fixed by the Provost, on other Sundays at 8 a.m.

The Chapel is closed during vacations.

Surplices are worn on Sundays at Morning and Evening Prayer. Gowns are worn at other times.

# Mobemble Fensts, 1921.

Septuagesima, January 23—Ash Wednesday, February 9. Easter Day, March 27—Rogation Sunday, May 1. Ascension Day, May 5—Whit Sunday, May 15. Advent Sunday, November 27. Sundays after Epiphany, 2; Sundays after Trinity, 26.

# Aublin Unibersity Almanac.

FROM OCTOBER 1, 1919, TO DECEMBER 31, 1920.

### EXPLANATION OF ALMANAC.

THE Almanac gives the days on which the various Examinations commence.

There are no *Tutorial* Lectures in Arts on days marked thus (†) in the Almanac. There may, however, be *Professorial* Lectures in the Professional Schools.

19	19,	OCTOBER.
1	W	Entrance Ex. in Arts for Medical School.
		Winter Session Medical School begins. Dissecting-rooms
		open. Elementary Instruction in Anatomy begins.
		Preliminary Scientific Medical.
		Intermediate Medical, Part I.
		Intermediate Medical, Part II.
		Preliminary Scientific Dental.
2	7731	Intermediate Dental.
2	Th	
3	F	Special Preliminary Ex. in Arts for Medical School.
4	Sa	
5	≅ M	16th Sunday after Trinity.
6	M	Final Medical, Part I.
		Diploma in Public Health, Part I.
7	Tu	
8	W	
9	Th	Diploma in Public Health, Part II.
10	F	Michaelmas Term begins.
		Autumn Entrance
		Exs. for Moderatorships begin.
		Term and Special Prize Exs. begin.
		B.A.I. Degree.
		Engineering Supplemental Exs., Middle and Junior Classes.
11	Sa	Jurisprudence Lectures begin.
11	Sa	Feudal and English Law Lectures begin.
12	m M	17th Sunday after Trinity.
13	M	Term Ex., Junior Freshmen.
		Junior and School Exhibitions.
		Criminal Law Lectures begin.
		Medical Lectures begin.
14	Tu	Civil Law Lectures begin.
15	W	Catechetical Ex., Junior Freshmen.
		Engineering School, Supplemental Entrance.
1		Diploma in Religious Knowledge for Women.
16	Th	Engineering Lectures begin.
17	F	Term Ex., Junior Sophisters.
		Entrance Prizes:—Hebrew.
18	Sa	St. Luke.
10	Die	Entrance Prizes:—German.
2.51	0 1	
19	S <sub>M</sub>	18th Sunday after Trinity.
20	M	Catechetical Ex., Junior Sophisters.
		Entrance Prizes:—French.
	(10)	Supplemental Divinity Ex., Junior Class.
21	Tu	Final Freshman Supplemental Ex.
		Entrance Prizes:—Natural Science.
		Charles Wilkins Memorial Prize.
		Supplemental Divinity Ex., Senior Class.
22	W	Divinity School Entrance.
	1	Archbishop King's and Bishop Forster's Divinity Prizes.
23	Th	Entrance Prizes: - Modern Irish.
		Divinity Lectures, Junior Class, begin.
		22,1111, 22,111

19	19,	OCTOBER—continued.
24	F	Entrance Prizes: -Greek Prose and Experimental Science.
41	L	Divinity Lectures, Senior Class, begin.
		Ex. for Diplomas in Education.
25	Sa	Entrance Prizes:—Greek Verse.
26	S I	19th Sunday after Trinity. Entrance Prizes:—Latin Prose.
28	Tu	St. Simon and St. Jude.
	***	Entrance Prizes:—Latin Verse.
29	W	Entrance Prizes:—English Literature. Entrance Prizes:—Scripture.
31	F	Entrance.
		Entrance Prizes: - English History and Modern Geography.
19	19,	NOVEMBER.
1 1	Sa	All Saints.
2	¥2	20th Sunday after Trinity.
3	M	Undergraduate Lectures in Arts begin.
4	Tu	Hebrew Lectures begin.
5	W	Catechetical Lectures begin.  Meeting of the University Council.
6	Th	interest of the charge country
7	F	
8	Sa	21st Sunday after Trinity.
10	M	21st Sanday after Trensity.
11	Tu	
12	Th	
13	F	
15	Sa	
16	5	22nd Sunday after Trinity.
17	M	Meeting of the Divinity School Council.
19	W	
20	+Th	Election of Annual Officers.
21 22	F	Annual Officers admitted.
	1	
23	S M	Sunday next before Advent.
24 25	Tu	
26	W	Term Ex. Feudal and English Law.
27	Th	Term Ex. Jurisprudence.
28	F	Term Ex. Civil Law. Term Ex. Criminal Law.
20	Da	A VARIA MAR. CARIFFERENT SITE III.
	1	
30	, 5	1st Sunday in Advent. St. Andrew.

19	19,	DECEMBER.
1	M	Final Medical, Part II., Surgery. M.Ch. Degree Ex. Final Medical, Part II., Midwifery. M.A.O. Degree Ex.
		B. Dent. Sc. and M. Dent. Sc. Degree Exs.
2	Tu	Last day for giving notice of intention to compete at Honor
1		and Prize Exs. in Hilary Term (see p. 3*).
		B.D. Degree Ex.
	į	Intermediate Ex. in Law.
3	W	LL.B. and LL.D. Degree Exs.
4	Th	
5	F	
6	Sa	
7	5	2nd Sunday in Advent.
8	M	Final Medical, Part II., Medicine.
9	Tu	Martin and the Hairmaite Commit
10	W	Meeting of the University Council. Divinity Lectures, Junior Class, end.
12	F	Divinity Lectures, Senior Class, end.
1.4	F	Supplemental Divinity Ex., Junior Class.
		Engineering Lectures end.
13	Sa	Catechetical Lectures end.
		Supplemental Divinity Ex., Senior Class.
14	≅ M	3rd Sunday in Advent. Ember Week.
15		Tr. January January Treatment in Autor and
16	Tu	Undergraduate Lectures in Arts end.  Hebrew Lectures end.
17	w	B.A. Degree Ex.
18	Th	D.A. Degree 122.
19	F	Catechetical Ex., Candidate Bachelors.
		Theses for M.D. Degree.
20	Sa	Winter Commencements.
		Michaelmas Term ends.
21 22	S <sub>M</sub>	4th Sunday in Advent. St. Thomas.
23	Tu	
24	W	
25	Th	Christmas Day.
26	F	St. Stephen.
27	Sa	St. John.
28	5	1st Sunday after Christmas. Innocents' Day.
29	M	
30	Tu	
91	1 11	

1   Th   Circumcision. 2   F   3   Sa   4   5   2nd Sunday after Christmas. 5   M	
2 F 3 Sa 4 S 2nd Sunday after Christmas.	
3 Sa 4 S 2nd Sunday after Christmas.	
4 \ \( \S \) \( \alpha \) 2nd Sunday after Christmas.	
4 5 2nd Sunday after Christmas.	
4 5 2nd Sunday after Christmas.	
4 & 2nd Sunday after Christmas.	
1 5 M	
6 Tu Epiphany.	
8 Th	
9 F	
10   Sa   Hilary Term begins,	
Term Ex. Senior Sophisters.	
Supplemental B.A. Degree Ex.	
Honor and Prize Exs. begin.	
International Law Lectures begin.	
Feudal and English Law Lectures begin.	
11   S   1st Sunday after Epiphany.	
12 M Constitutional Law Lectures begin.	
Engineering Lectures begin.	
13 Tu Catechetical Ex. Senior Sophisters.	
Civil Law Lectures begin.	
14 W Term Ex. Junior Sophisters.	
Diploma for Women in Religious Knowledge.	
15 Th 16 F Catechetical Ex. Junior Souhisters.	
16 F Catechetical Ex. Junior Sophisters. 17 Sa Term Ex. Senjor Freshmen.	
Supplemental Final Freshman Ex.	
18 3 2nd Sunday after Epiphany.	
19 M	
20 Tu Catechetical Ex. Senior Freshmen.	
21 W Entrance. 22 Th Meeting of the Divinity School Council	
22 Th Meeting of the Divinity School Council. 23 F Term Ex. Junior Freshmen.	
Divinity Lectures, Senior Class, begin.	
24 Sa Divinity School Entrance.	
The state of the s	
05 6 0.10 1 0. 70 1	
25 \$\ 3rd Sunday after Epiphany. Conversion of St. Paul. 26 M Catechetical Ex. Junior Freshmen.	
26 M Catechetical Ex. Junior Freshmen. Divinity Lectures, Junior Class, begin.	
27 Tu Divinity Lectures, Junior Class, begin.	
28 W	
29 Th	
30   F	
31   Sa	

19	20,	FEBRUARY.
1	15	Septuagesima.
2	M	Purification of B.V.M.
		Undergraduate Lectures in Arts begin.
3	Tu	Hebrew Lectures begin.
4	W	Catechetical Lectures begin.
		Meeting of the University Council.
5	Th	·
6	F	
. 7	Sa	
8	5	Sexagesima,
9	M	y and y
10	Tu	
11	W	
12	Th	Practical Test for Mus. B. and Mus. D. Degrees.
13	F	Mus. B. and Mus. D. Degree Exs.
14	Sa	
15	1.2	Quinquagesima.
16	S M	Theses for M.D. Degree.
17	†Tu	Shrove-Tuesday.
		Spring Commencements.
18	+W	Ash-Wednesday.
19	Th	Meeting of the Divinity School Council.
20	F	or one primary contents
21	Sa	
22	€	1st Sunday in Lent. Quadragesima. Ember Week.
23	M	1st Sanaay in heat. Qualityesima. Emper in esk.
24	Tu	St. Matthias.
~ .	1.11	Carson Biblical, and Toplady Memorial Scripture Prizes.
25	W	Term Ex. International Law.
-		Meeting of the University Council.
26	Th	Term Ex. Constitutional Law.
27	F	Term Ex. Feudal and English Law.
28	Sa	Term Ex. Civil Law.
29	5	2nd Sunday in Lent.
20	~	who streamy we have
		MARCH.
1	M	
2	Tu	B.D. Degree Ex. Theological Exhibitions.
3	W	
4	Th	
5	F	Last day for giving notice of intention to compete at Honor
	0	and Prize Exs. in Trinity Term (see p. 4*).
6	Sa	
7	5	3rd Sunday in Lent.
8	M	Preliminary Scientific Medical (Botany and Zoology).
		Intermediate Medical, Part I.
		Final Medical, Part II., Medicine.
		Diploma in Public Health, Part I.
		Intermediate Dental.
		Test Ex. Indian Civil Service School.

	1920, MARCH-continued.		
9	Tu		
11	Th	Diploma in Public Health, Part II.	
12	F	Diploma in I donc Health, Tart II.	
13	Sa	Medical School Winter Session ends.	
		Meeting of the Senate for nomination to Honorary Degrees.	
14	~	LAL COURT CO. T. A.	
15	S	4th Sunday in Lent. Entrance Ex. in Arts for Medical School.	
10	212	Preliminary Scientific Medical (Physics and Chemistry).	
		Intermediate Medical, Part II.	
		Final Medical, Part I.	
		Final Medical, Part II., Surgery. M.Ch. Degree Ex.	
		Final Medical, Part II., Midwifery. M.A.O. Degree Ex. Preliminary Scientific Dental (Physics and Chemistry).	
•		B. Dent. Sc. and M. Dent. Sc. Degree Exs.	
16	Tu	Divinity Lectures, Senior Class, end.	
17	W	Supplemental Divinity Ex., Senior Class.	
18	Th	Hebrew Lectures end.	
19	F	Divinity Lectures, Junior Class, end. Undergraduate Lectures in Arts end.	
10	-	Supplemental Divinity Ex., Junior Class.	
		Engineering Lectures end.	
20	Sa	Catechetical Lectures end.	
21	5	5th Sunday in Lent.	
22 23	M Tu	Special Preliminary Ex. in Arts for Medical School.	
20	.u		
24	W		
25	Th	Annunciation B. V. M.	
26	F	Hilary Term ends.	
27	Sa		
28	\$ 1	Sunday next before Easter.	
29	M		
30	Tu		
31	W		
_	20,	APRIL.	
1	Th	C 1 70.1.	
2 3	Sa	Good Friday. Easter Even.	
-	1766	2310007 2350783	
4	5	EASTER DAY.	
ő	M	Monday in Easter Week.	
6	Tu	Tuesday in Easter Week.	
7	w	Ex. for Diplomas in Economics and Commercial Knowledge.	
8	Th		
9	F		
10	Sa		

19	1920, APRIL-continued.		
11	3	1st Sunday after Easter.	
12	M	Medical School Summer Session begins.	
13	Tu		
14	Th	Trinity Term begins.	
10	1.11	Term Ex. Senior Sophisters.	
		Supplemental B.A. Degree Ex.	
		Honor and Prize Exs. begin.	
16	F	G . 1	
17	Sa	Catechetical Ex. Senior Sophisters.	
		Lectures in International Law begin. Feudal and English Law Lectures begin.	
		Theses for M.D. Degree.	
		*	
1S 19	≅ M	2nd Sunday after Easter.	
10	NI.	First Trinity Commencements.  Law of Evidence Lectures begin.	
20	Tu	Term Ex. Junior Sophisters.	
-		Civil Law Lectures begin.	
21	W	Divinity School Entrance.	
	2817	Diploma for Women in Religious Knowledge.	
22	Th	Catechetical Ex. Junior Sophisters.	
		Divinity Lectures, Junior Class, begin, B.A.I. Degree Ex.	
		Engineering Exs. Middle and Junior Classes.	
23	F	Term Ex. Senior Freshmen.	
		Supplemental Final Freshman Ex.	
		Divinity Lectures, Senior Class, begin.	
21	Sa	Examination for Diplomas in Education.	
21	154		
25	=	3rd Sunday after Easter. St. Mark.	
26	≋ M	Entrance.	
		Catechetical Ex. Senior Freshmen.	
27	Tu	Engineering Lectures begin.	
28 29	W	Term Ex. Junior Freshmen.	
29	111	Exs. for Scholarships in Classics, Mathematics, Experimental Science, Modern Languages, Natural Science, and	
		History and Political Science.	
30	F	Catechetical Ex. Junior Freshmen.	
19	20,	MAY.	
1	Sal	St. Philip and St. James.	
2	9	4th Sunday after Easter.	
3	M		
4	Tu		
5	W	Undergraduate Lectures in Arts begin.	
6	Th	Catechetical Lectures begin.  Hebrew Lectures begin.	
7	F	Titorow Doublets begin.	
8	Sa		

19	20,	MAY-continued.
9	1 3	5th Sunday after Easter Rogation Sunday.
10	M	
11	Tu	
12	W	Downes' Prizes for Written Essays.
-		Meeting of the University Council.
13	+Th	Ascension Day,
14	F	
15	Sa	
16	5	Sunday after Ascension Day.
17	M	Others ty ter 210000000 12thy.
18	Tu	
19	W	Downes' Prizes for Extempore Speaking.
20	Th	Meeting of the Divinity School Council.
21	F	and the same of th
22	Sa	
23	5	WHIT SUNDAY. Ember Week.
24	+M	Monday in Whitsun-Week.
25	Tu	Tuesday in Whitsun- Week.
26	W	Downes' Prizes for Reading the Liturgy (Written Ex.).
27	Th	Downer Times and Leaving the Little ( 1 inter Little)
28	F	
29	Sa	
30	1 5	TRINITY SUNDAY.
	+M	Election of Scholars.
	11.00	
19	20,	JUNE.
1	Tu	B.D. Degree Ex.
2	W	Downes' Prizes for Reading the Liturgy (Viva-voce Ex.).
	1	Annual Ex. Feudal and English Law.
		Meeting of the University Council.
3	Th	Last day for giving notice of intention to compete at Honor
		and Prize Exs. in Michaelmas Term (see p. 6*).
		Annual Ex. Civil Law.
4	F	Annual Ex. International Law.
5	Sa	Kyle Irish Prize.
		Annual Ex. Constitutional and Criminal Law.
6	5	1st Sunday after Trinity.
7	S M	Final Medical, Part II., Surgery. M.Ch. Degree Ex.
		Final Medical, Part II., Midwifery. M.A.O. Degree Ex.
		B. Dent. Sc. and M. Dent. Sc. Degree Exs.
8	Tu	Intermediate Ex. in Law.
		LL.B. and LL.D. Degrees Exs.
9	W	
10	Th	
11	F	St. Barnabas.
12	Sa	Catechetical Lectures end.
13	5 1	2nd Sunday after Trinity.
14	M	Intermediate Medical, Part I.
	1	Final Medical, Part II., Medicine.
		Medical Scholarship, Anatomy and Institutes of Medicine.
3	-	Intermediate Dental.
		A CONTRACTOR OF THE PARTY OF TH

1920,		JUNE-continued.
15	Tu	Hebrew Lectures end.
		Divinity Lectures, Senior Class, end.
		Engineering Lectures end.
		B.A.I. Degree Ex. (In part.)
16	W	Final Divinity Ex., Senior Class.
17	Th	Undergraduate Lectures in Arts end.
		Divinity Lectures, Junior Class, end.
		Bedell Irish Scholarship.
		Meeting of the Divinity School Council.
18	F	Midsummer Entrance.
		General Divinity Ex., Junior Class.
19	Sa	
20	\$	3rd Sunday after Trinity.
21	M	Supplemental Hilary Ex., Junior Freshmen.
		Sizarship.
		Preliminary Scientific Medical.
		Intermediate Medical, Part II.
		Final Medical, Part I.
		Diploma in Public Health, Part I.
		Medical Scholarship, Physics, Chemistry, Botany, and
		Zoology. Surgical Travelling Prize.
		Preliminary Scientific Dental.
		Engineering Exs., Middle and Junior Classes.
22	Tu	Engineering 12x3., Middle and a unior Classes.
23	W	Final Freshman Ex.
24	Th	St. John Baptist.
ar.	.2.11	Diploma in Public Health, Part II.
25	F	Practical Test for Mus. B. and Mus. D. Degrees.
26	Sa	Special B.A. Degree Ex.
		Catechetical Ex., Senior Freshmen.
	1	Medical School Summer Session ends.
	ŧ	Engineering School Entrance.
	1	Mus. B. and Mus. D. Degrees Exs.
27	15	4th Sunday after Trinity.
28	S M	
29	Tu	St. Peter.
		Catechetical Ex., Candidate Bachelors.
		Theses for M.D. Degree.
30	W	Summer Commencements.
		Trinity Term ends.
10	90.	JULY.
1	7h	
2	F	
3	Sa	
4	5	5th Sunday after Trinity.
5	M	Library closed.
6	Tu	
7	W	
8	Th	
9	F.	
10	Sa	
-		

1920. JULY-continued.					
1920, JULY-continued.  11 \( \frac{1}{2} \)   6th Sanday after Trinity.					
12	M	Och Othicoldy after 1			
13	Tu				
14	W				
15	Th				
16	F	a a			
17	Sa				
18	5	7th Sunday after Trinity.			
19	M	Library re-opened.			
20	Tu				
22	Th				
23	F				
24	Sa				
25	2	8th Sunday after Trinity. St. James.			
26	M	ove committee and a committee of the com			
27	Tu				
28	W				
29	Th				
30	F				
31	Sa				
10	20,	AUGUST.			
1 2	M	9th Sunday after Trinity.			
3	Tu				
4	W				
ő	Th				
6'	F				
7	Sa				
8	5	10th Sunday after Trinity.			
9	M				
10	Tu				
12	Th				
13	F				
14	Sa				
15	5	11th Sunday after Trinity.			
16	M				
17	Tu				
18	W				
19	Th				
20	F				
21	50	1911 Sanday after Privite			
23	M	12th Sunday after Trinity.			
24	Tu	St. Bartholomew.			
25	W				
26	Th				
27	F				
28	Sa				

1920. AUGUST-continued.				
	20,	13th Sunday after Trinity.		
29 30	M	100% Sandag after 17 mily		
31	Tu			
	20,	SEPTEMBER.		
1	W			
2	Th			
3	F			
4	Sa			
5	3	14th Sunday after Trinity.		
6	M			
7 8	Tu			
9	Th			
10	F			
11	Sa			
-12	5	15th Sunday after Trinity. Ember Week.		
13	M	1000 Stonetty af vot 11 therey. 12 moor is con.		
14	Tu			
15	W			
16	Th			
17	F			
18	Sa			
19	5	16th Sunday after Trinity.		
20	M			
21	Tu	St. Matthew.		
22	W			
23	Th			
24	F			
25	S			
26	3	17th Sunday after Trinity.		
27	M			
28	Tu	St. Windows All Angelo		
30	Th	St. Michael and All Angels.		
18	20,	OCTOBER.		
1	F	Entrance Ex. in Arts for Medical School. Winter Session Medical School begins. Dissecting-rooms		
		open. Elementary Instruction in Anatomy begins.		
		Preliminary Scientific Medical.		
		Intermediate Medical, Part I.		
		Intermediate Medical, Part II.		
		Preliminary Scientific Dental.		
		Intermediate Dental.		
2	Sa			
3	5	18th Sunday after Trinity.		
	M	Special Preliminary Ex. in Arts for Medical School.		
5	Tu			
5 6 7	W			
7	Th			
8 9	F			
9	S	· · · · · · · · · · · · · · · · · · ·		

1920, OCTOBER-continued.				
10	\$	19th Sunday after Trinity.		
		Michaelmas Term begins.		
11	M	Autumn Entrance.		
		Exs. for Moderatorships begin.		
		Term and Special Prize Exs. begin.		
		Criminal Law Lectures begin. Final Medical, Part I.		
		Diploma in Public Health, Part I.		
		Medical Lectures begin.		
		B.A.I. Degree.		
		Engineering Supplemental Exs., Middle and Junior Classes.		
12	Tu	Civil Law Lectures begin.		
13	W	Term Ex., Junior Freshmen.		
		Junior and School Exhibitions.		
		Jurisprudence Lectures begin.		
		Feudal and English Law Lectures begin. Engineering School, Supplemental Entrance.		
		Diploma for Women in Religious Knowledge.		
14	Th	Diploma in Public Health, Part II.		
		Engineering Lectures begin.		
15	F	Catechetical Ex., Junior Freshmen.		
16	Sa			
17	~	OOL Sunday of the Trivity		
18	S M	20th Sunday after Trinity. St. Luke.		
10	M	Term Ex. Junior Sophisters.		
		Entrance Prizes:—Hebrew.		
		Supplemental Divinity Ex., Junior Class.		
19	Tu	Entrance Prizes:—German.		
		Supplemental Divinity Ex., Senior Class.		
20	W	Catechetical Ex., Junior Sophisters.		
		Entrance Prizes:—French.		
		Divinity School Entrance.  Archbishop King's and Bishop Forster's Divinity Prizes.		
21	Th	Final Freshman Supplemental Ex.		
	-	Entrance Prizes:—Natural Science.		
		Charles Wilkins Memorial Prize.		
		Divinity Lectures, Junior Class, begin.		
22	F	Divinity Lectures, Senior Class, begin.		
23	e .	Ex. for Diplomas in Education.		
	Sa	Entrance Prizes: - Modern Irish.		
24 25	S M	21st Sunday after Trinity. Entrance Prizes: — Greek Prose and Experimental Science.		
26	Tu	Entrance Prizes:—Greek Verse.		
27	W	Entrance Prizes: — Latin Prose.		
28	Th	St. Simon and St. Jude.		
		Entrance Prizes: -Latin Verse.		
29	F	Entrance Prizes: - English Literature.		
30	Sa	Entrance Prizes:—Scripture.		
31	2	22nd Sunday after Trinity.		

19	20,	NOVEMBER.
1	M	All Saints. Entrance.
	773	Entrance Prizes:—English History and Modern Geography.
3	Tu	Undergraduate Lectures in Arts begin.
4	Th	Catechetical Lectures begin.  Hebrew Lectures begin.
5	F Sa	
	Da	
7	5	23rd Sunday after Trinity.
8 9	M Tu	
10	W	Meeting of the University Council.
12	F	
13	Sa	
14 15	₩ M	24th Sunday after Trinity.
16 17	Tu	Meeting of the Divinity School Council.
18	Th	
19 20	F Sa	Election of Annual Officers.
21	\$	Sunday next before Advent.  Annual Officers admitted.
22 23	M	
24	W	Term Ex. Feudal and English Law.
25 26	Th F	Term Ex. Juri prudence. Term Ex. Civil Law.
27	Sa	Term Ex. Criminal Law.
28	S M	1st Sunday in Advent. Final Medical, Part II., Surgery. M.Ch. Degree Ex.
2 9	M	Final Medical, Part II., Midwifery. M.A.O. Degree Ex.
30	Tu	B. Dent. Sc. and M. Dent. Sc. Degrees Ex. St. Andrew.
		Last day for giving notice of intention to compete at Honor and Prize Exs. in Hilary Term (see p. 3*).
		Intermediate Ex. in Law. LL.B. and LL.D. Degrees Exs.
	100	DECEMBER.
16	20, W	BECLINBER
2 3	Th	
4	Sa	

18	20,	DECEMBER-continued.	
5	S M	2nd Sunday in Advent. Final Medical, Part II., Medicine.	
7	Tu	B.D. Degree Ex.	
8	W	Meeting of the University Council.	
9	Th		
10	F	Engineering Lectures end.	
11	Sa	Catechetical Lectures end.	
12	52	3rd Sunday in Advent. Ember Week.	
13	M	Divinity Lectures, Junior Class, end.	
14	Tu	Undergraduate Lectures in Arts end.	
		Hebrew Lectures end.	
		Divinity Lectures, Senior Class, end.	
9.0	337	Supplemental Divinity Ex., Junior Class.	
15	W	B.A. Degree Ex. Supplemental Divinity Ex., Senior Class.	
16	Th	Supplemental Divinity Ex., Senior Class.	
17	F	Catechetical Ex., Candidate Bachelors.	
		Theses for M.D. Degree.	
18	Sa	Winter Commencements.	
19	<b>a</b>	4th Sunday in Advent.	
20	M	Michaelmas Term ends.	
21	Tu	St. Thomas.	
22	W		
23	Th		
24	F	01 ' / D	
25	Sa	Christmas Day.	
26	5	1st Sunday after Christmas. St. Stephen.	
27	M	St. John.	
28	Tu	Innocents' Day.	
29	W		
30	Th		
01	E ]		

# Officers

OF THE

# Unibersity and College,

July 1, 1919.

Chancellor.

The Earl Iveagh, K.P., LL.D.

Vice-Chancellor.

The Right Hon. Sir James Henry Mussen Campbell, Bart., LL.D., Lord Chancellor of Ireland.

Visitors.

The Chancellor (or in his absence the Vice-Chancellor). The Lord Chief Justice.

Provost.

The Right Hon. and Most Rev. John Henry Bernard, D.D.

Senior Fellows.

Thomas Thompson Gray, M.A., Vice-Provost.
Francis Alexander Tarleton, LL.D., Sc.D., Senior Dean and
Catechist.

George Lambert Cathcart, M.A., Auditor. Louis Claude Purser, M.A., Litt.D., Bursar. William Ralph Westropp Roberts, D.D., Senior Lecturer. Edward Parnall Culverwell, M.A., Registrar. Alexander Charles O'Sullivan, M.A., M.D.

Junior Fellows.

[Those marked thus (\*) are Tutor Fellows.]

Robert Russell, M.A.
Matthew Wyatt Joseph Fry, M.A., Senior Proctor.
George Wilkins, B.D.
Henry Stewart Macran, M.A.

Edward John Gwynn, M.A., Junior Bursar and Registrar of Chambers.

\*Gerard Alston Exham, M.A. William Edward Thrift, M.A. Josiah Gilbart Smyly, Litt, D. George William Mooney, M.A.

\*William Kennedy, M.A.

\*Reginald Arthur Percy Rogers, M.A.
\*William Alexander Goligher, M.A., Litt.D.

\*John Fraser, M.A.

\*Ernest Henry Alton, M.A.

\*Robert Malcolm Gwynn, B.D.

\*George Randolph Webb, M.A.

\*Robert William Tate, M.A., Junior Dean.

\*Harry Thrift, M.A.

John Joly, Sc.D.

\*Hugh Canning, M.A., Junior Proctor.

\*Arthur Aston Luce, B.D. \*Joseph Johnston, M.A.

\*James Maxwell Henry, M.A.
\*Francis LaTouche Godfrey, B.A.

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William Edward Thrift, M.A. Edward John Gwynn, M.A.

Representatives of the Professors on the Board.

Charles Francis Bastable, LL.D. Henry Horatio Dixon, Sc.D.

Representatives of the University in Parliament.

## Honor Examiners for the Year 1920.

## In Mathematics.

Erasmus Smith's Professor of Mathematics.
The University Professor of Natural Philosophy.
R. A. P. Rogers, M.A.
G. R. Webb, M.A.
C. H. Rowe, B.A.

#### In Classics.

The Regius Professor of Greek. The Professor of Latin. W. Kennedy, M.A. W. A. Goligher, Litt.D. E. H. Alton, M.A.

## In Mental and Moral Philosophy.

H. S. Macran, M.A. G. A. Exham, M.A. A. A. Luce, B.D.

### In Experimental Science.

The University Professor of Chemistry.
Erasmus Smith's Professor of Natural and Experimental Philosophy.
Professor of Applied Chemistry.
H. Thrift. M.A.

#### In Natural Science.

The Professor of Zoology and Comparative Anatomy. The University Professor of Botany. The Professor of Geology and Mineralogy.

## In History and Political Science.

Erasmus Smith's Professor of Modern History. The Professor of Political Economy. Miss C. Maxwell.

## In Modern Literature.

The Professor of English Literature.
The Professor of the Romance Languages.
The Professor of German.
R. W. Tate, M.A.

## Celtic Languages.

Professor of Irish. Lecturer in Celtic Languages.

## Honor Lecturers for the Year 1919-1920.

#### In Mathematics.

R. A. P. Rogers, M.A. G. R. Webb, M.A. C. H. Rowe, B.A.

In Classics.

W. Kennedy, M.A. W. A. Goligher, Litt.D. E. H. Alton, M A.

In Mental and Moral Philosophy.

H. S. Maeran, M.A. G. A. Exham, M.A. A. A. Luce, B.D.

In Legal and Political Science.

The Professor of Political Economy.

The Regius Professor of Feudal and English Law.

The Reid Professor of Law.

The Board nominates Special Courts of Examiners for Moderatorships and Scholarships, which will be constituted as follows for the year 1920, a Member of the Board presiding in each Court of Examiners for Moderatorships:—

## Moderatorships, 1920.

Mathematics.—A. C. O'Sullivan, M.D. (President); Erasmus Smith's Professor of Mathematics; The University Professor of Natural Philosophy; A. C. O'Sullivan, M.D.; R. A. P. Rogers, M.A.; G. R. Webb, M.A.; J. M. Henry, M.A.

Classics.—L. C. Purser, M.A., Litt.D. (President); the Regius Professor of Greek; the Professors of Latin, of Ancient History and Classical Archæology, and of Sanskrit and Comparative Philology; W. Kennedy, M.A.; E. H. Alton, M.A.

Mental and Moral Philosophy. - F. A. Tarleton, J.L.D., Sc.D. (President); the Professor of Moral Philosophy; G. A. Exham, M.A.; H. Canning, M.A.; A. A. Luce, M.A.

Experimental Science.—G. L. Cathcart, M.A. (President); the University Professor of Chemistry; Erasmus Smith's Professor of Natural and Experimental Philosophy; the Professor of Applied Chemistry; H. Thrift, M.A.

Natural Science.—E. P. Culverwell, M.A. (President); the Professors of Comparative Anatomy and Zoology, and of Geology and Mineralogy; the University Professor of Botany; the University Professor of Anatomy and Chirurgery; the King's Professor of the Institutes of Medicine; A. C. O'Sullivan, M.D.

History and Political Science.—The Vice-Provost (President); the Professor of Political Economy; the Professor of Ancient History and Classical Archæology; the Lecky Professor of Modern History; Erasmus Smith's Professor of Modern History; J. Johnston, M.A.

Modern Literature.—W. R. W. Roberts, D.D. (President); the Professors of English Literature, of the Romance Languages, and of German; E. J. Gwynn, M.A.; R. W. Tate, M.A.

Legal and Political Science.—The Provost, D.D. (President); the Regius Professor of Laws; the Regius Professor of Feudal and English Law; the Reid Professor of Law; W. A. Goligher, Litt.D.

### Scholarships, 1920.

Classics.—The Regius Professor of Greek, the Professors of Latin and of Ancient History and Classical Archæology; G. Wilkins, B.D.; W. Kennedy, M.A.; E. H. Alton, M.A.; H. Canning, M.A.; A. A. Luce, B.D.

Mathematics.—Erasmus Smith's Professor of Mathematics; the University Professor of Natural Philosophy; R. A. P. Rogers, M.A.; G. R. Webb, M.A.

Experimental Science.—The University Professor of Chemistry; Erasmus Smith's Professor of Natural and Experimental Philosophy; the Professor of Applied Chemistry; H. Thrift, M.A.

Modern Languages.—The Professors of the Romance Languages, and f German; E. J. Gwynn, M.A.; R. W. Tate, M.A.

#### PROFESSORS AND LECTURERS

Arranged under subjects and schools.

[Figures added in brackets after the title or name of any officer denote the period in years for which the election is made. Officers marked (\*) are elected annually.]

The following Offices become vacant at the dates respectively affixed to them:-

Professorship of Education,	
Lectureship in Hebrew,	1919, Sept. 30.
Regius Professorship of Feudal and English Law,	1919, Oct. 21.
Professorship of Romance Languages,	1919, Nov. 15.
Professorship of Sanskrit and Comparative Philology,	1919, Dec. 19.
Professorship of Music,	1920, April 1.
Professorship of German,	1920. June 12.
Lectureship in Anglo-Saxon,	1920, June 12.
Reid Professorship of Law,	1920, Dec. 20.

MATHEMATICAL, PHYSICAL, AND NATURAL SCIENCE.

First Election.

Erasmus Smith's Professor of Mathematics.

Last Election

[Founded 1762.]

Oct. 30. Robert Russell, M.A.

Doneyal Lecturer in Mathematics.

[Founded 1675.]

Nov. 10. Reginald Arthur Percy Rogers, M.A.

University Professor of Natural Philosophy.

(Founded 1847.)

June 30. Matthew Wyatt Joseph Fry, M.A.

Assistant:—John Fraser, M.A.

Erasmus Smith's Professor of Natural and Experimental Philosophy.

[Founded 1724.]

1901. Mar. 23. William Edward Thrift, M.A.

Assistants:—Harry Thrift, M.A.
Horace Hewitt Poole, Sc.D.

Last Election.

Royal Astronomer of Ireland, on the Foundation of Dr. Andrews.

[Founded 1783.]

1912. Henry Crozier Plummer, M.A.

Assistant:-Charles Martin.

University Professor of Chemistry. (7)
[Founded 1711.]

1903. Oct. 20. Sydney Young, Sc.D.

1917.

Assistant: William Cecil Ramsden.

Demonstrator: James Bell.

## Professor of Applied Chemistry.

[Founded in 1841 as a Professorship of Chemistry and Geology applied to the Arts of Construction: discontinued in 1881; re-established in 1904 as a Professorship of Applied Chemistry.]

1904. Nov. 19. Fmil Alphonse Werner, Sc.D.

## University Professor of Botany. (7)

[Founded 1711.]

1904. April 16. Henry Horatio Dixon, Sc.D.

1918.

Assistant: - William Ringrose Gelston Atkins, M.A., Sc.D.

# Professor of Geology and Mineralogy.

[Founded 1844.]

1897. Oct. 16. John Joly, M.A., Sc.D.

Assistant: Louis Bouvier Smyth, Sc. B.
Senior Research Assistant: Joseph Rogerson Cotter, M.A.
Junior Research Assistant: John Hewitt Jellett Poole, B.A.

## Professor of Zoology and Comparative Anatomy.

[A Lectureship in Zoology was established in 1857, was made a Professorship in 1872, and was permanently united in 1895 to the Professorship of Comparative Anatomy, which had been founded in 1872.]

Nov. 29. Henry William Mackintosh, M.A.

Lecturer in Palæontology.

[Founded 1913.]

March 1. Louis Bouvier Smyth, Sc. B.

Lecturer in Mathematics. (1)

[Founded 1918.]

1918. Charles Henry Rowe, B.A.

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UNIVERSITY AND COLLEGE OFFICERS.

First . Election.

Last Election.

LANGUAGES AND LITERATURE.

Regius Professor of Greek.

[Founded 1761.]

1915. Josiah Gilbart Smyly, Litt.D. Nov. 3. 1

Professor of Latin. (7)

[Founded 1870.]

1915. George William Mooney, M.A. Nov. 13.

Lecturer in Classical Composition.

[Founded 1896.]

1908. Robert William Tate, M.A. Nov. 7.

Professor of Hebrew. (7)

[Founded by the Board of Erasmus Smith, 1724.]

1900. George Wilkins, B.D. Oct. 20.

1914.

Lecturers in Hebrew.

1898. Newport John Davis White, D.D. (1) Feb. 5. 1

1918. Nov. 20.

\*William Kennedy, M.A. \*Ernest Henry Alton, M.A.

Nov. 20.

Professor of Arabic, Persian, and Hindustani. (7)

[Founded 1856.]

1905. Sir Lucas White King, LL.D. Mar. 2.

1919.

Professor of Sanskrit and Comparative Philology. (5) [Founded 1858.]

1914. Hugh Canning, M.A. Dec. 19.

> Professor of the Romance Languages. (5) [Founded 1778 as Professorship of Italian and Spanish.]

Thomas Brown Rudmose-Brown, M.A. 1909. Nov. 15. 1 (Aberdeen).

1914.

Assistant: Elizabeth Deane, B.A. (1)

Professor of German. (5)

Last Election.

Founded in 1778 as Professorship of French and German; the Chair of French is now merged in that of Romance Languages.

June 12. Gilbert Waterhouse, M.A., Litt.D.

Professor of Irish. (5)
[Founded 1840.]

July 5. Thomas Francis O'Rahilly.

Professor of Modern East Indian Languages. (5)

1913. June 18 John van Someren Pope, M.A.

1918.

Lecturer in Celtic Languages.

[Founded 1907.]

1907. Nov. 14. Edward John Gwynn, M.A.

Lecturer in Anglo-Saxon. (5) [Founded 1907.]

June 12. Gilbert Waterhouse, M.A., Litt.D.

Lecturer in Italian. (1)
[Founded 1916.]

1916. Thomas Brown Rudmose-Brown, M.A. Feb. 3. (Aberdeen).

June 15, 1918.

Professor of English Literature, [Founded 1867.]

1913. Nov. 22 Wilbraham Fitzjohn Trench, Litt.D.

Erasmus Smith's Professor of Oratory.

[Founded 1724 as a Professorship of Oratory and Modern History; the Modern History was made a separate Chair in 1762.]

Nov. 14. Edmund Curtis, M.A.

MENTAL AND MORAL SCIENCE.

Professor of Moral Philosophy. (5)
[Founded 1837.]

1919. July 1. Henry Stewart Macran, M.A.

Last Election.

HISTORY AND POLITICAL SCIENCE.

Professor of Political Economy.

[Founded 1832.]

1882. Charles Francis Bastable, LL.D. Mar. 25.

> Erasmus Smith's Professor of Modern History. [Founded 1762.]

1914. Edmund Curtis, M.A. June 27.

Lecky Professor of Modern History,

[Founded 1913.]

1914. Walter Alison l'hillips, M.A. June 25.

Professor of Ancient History and Classical Archaeology. (5) Founded 1869 as a Professorship of Ancient History. Title altered in 1909.]

1904. William Alexander Goligher, M.A., Litt.D. 1919. June 4. Assistant: - Joseph Johnston, M.A. (1)

> Lecturer in Modern History. [Founded 1911.]

1911. Constantia Elizabeth Maxwell, M.A. June 24.

## DIVINITY.

Regius Professor of Divinity.

Founded 1607 († 1600) as Professorship of Divinity; made a Regius Professorship, 1761. 1917. Alan Hugh McNeile, D.D. Sept. 19. /

Assistant :

\*Hugh Jackson Lawlor, D.D., Litt.D. Nov. 20.

Archbishop King's Professor of Divinity.

[Founded as a Lectureship in 1718, changed to a Professorship by a Decree dated December 5, 1906. j

1916. Newport John Davis White, D.D. Jan. 22. 1

#### Assistants:

\*Hugh Jackson Lawlor, D.D.

\*Denton Charles Green, B.D.

Nov. 20.

	UNIVERSITY AND COLLEGE OFFICERS.	01"
First Election.		Last Election.
	Professor of Biblical Greek. (5)	
1016	[Founded 1838.]	
1916. Feb. 19.	Robert Malcolm Gwynn, B.D.	4
	Professor of Ecclesiastical History. (5)	
	[Founded 1850.]	
1898. May 7.	Hugh Jackson Lawlor, D.D., Litt.D.	1918.
	Professor of Pastoral Theology. (5)	•
1015	[Founded 1888.]	
June 23.	John Godfrey FitzMaurice Day, M.A. (Cantab.).	
	Lecturer in the English Bible. (5)	
****	[Founded 1898.]	
1916. Jan. 29.	Hugh Jackson Lawlor, D.D., Litt.D.	
	Wallace Divinity Lecturer.	
1000	[Founded 1901.]	
1902. Mar. 8.	John Andrew Jennings, M.A.	
	Catechists—Presbyterian Church.	
1886.	John Love Morrow, M.A. (R.U.I.).	
1915. Oct. 16.	Robert Kennedy Hanna, B.A. (R.U.I.).	
	LAW.	

## Regius Professor of Laws.

[Founded 1668.]

1908. Feb. 29. Charles Francis Bastable, LL.D.

## Regius Professor of Feudal and English Law. (5)

[Founded 1761.]

1909. Oct. 21. James Sinclair Baxter, LL.D.

1914.

Last Election.

Professor of Civil Law and General Jurisprudence. (5)
[The duties of this Chair were, prior to 1908, attached to the Regius Professorship in 1908 it was re-organised as a separate Chair.]

[Suspended.]

Reid Professor of Penal Legislation, Constitutional and Criminal Law, and the Law of Evidence. (5)

[Founded 1888.]

1915. William Lowry, LL.B. (Q.U.B.).

MEDICINE.

Regins Professor of Physic.

1917. Feb. 10. John Mallet Purser, M.D.

Regius Professor of Surgery. (5)

[Founded 1852.]

1916. May 13. Edward Henry Taylor, M.D.

Professor of Surgery. (7)

[Founded 1849.]

July 1. Thomas Eagleson Gordon, M.B.

Assistant: William Pearson, M.D.

University Professor of Anatomy and Chirurgery. (7)

June 20. Andrew Francis Dixon, M.B., Sc.D., 1917.

\* Chief Demonstrator.

Jan. 11. Isaac Whitla Corkey, M.B.

\* University Anatomist.

[Founded 1716.]

1916. May 13. Edward Henry Taylor, M.D.

Nov. 20.

\*Lecturer in Medical Jurisprudence.

[Founded 1888.]

1888. April 7. Henry Theodore Bewley, M.D.

Nov. 20.

Last Election.

First Election.

Lecturer in Pathology.

1895. June 22. Alexander Charles O'Sullivan, M.D.

Senior Assistant: —Joseph Theodore Wigham, M.D. Junior Assistant: —Victor Millington Synge, M.B. Research Assistant: —Adrian Stokes, M.B.

King's Professor of Practice of Medicine. 
[Founded 1717.]

1910. James Craig, M.D.

King's Professor of Materia Medica and Pharmacy.<sup>a</sup>
[Founded 1749.]

1881. Walter George Smith, M.D.

King's Professor of Institutes of Medicine. [Founded 1786.]

March 15. Harold Pringle, M.D.

Assistant :- William Robert Fearon, Sc.D.

King's Professor of Midwifery. Founded 1827.]

1911. Thomas Henry Wilson.

\*Lecturer in Dental Surgery and Dental Pathology.

[Founded 1910.]

1910. April 30. Arthur Windowe Willert Baker, M.D., M.Dent.Sc. Nov. 20.

\*Lecturer in Dental Mechanics.

[Founded 1910.]

1910. April 30. Joseph Cockburn.

Nov. 20.

\*Lecturer in Orthodontia.
[Founded 1910.]

1910. April 30. Ernest Sheldon Friel, M.Dent.Sc. Nov. 20.

Appointed by the Royal College of Physicians of Ireland.

Election.

Last

Election.

First

\*Lecturer in Anæsthetics.

[Founded 1910.]

1910. April 30. Thomas Percy Claude Kirkpatrick, M.D. Nov. 20.

> Mary Louisa Prentice Montgomery Lecturer in Ophthalmology. (1)

> > [Founded 1915.]

1918. June 15. Lt.-Col. Gordon Morgan Holmes, M.D., C.M.G.

Honorary Professor of Laryngology and Otology.

[Founded in 1916 for present holder only.]

June 17. Sir Robert Henry Woods, M.Ch.

Honorary Professor of Dermaiology.

[Founded in 1917 for present holder only.]

June 23. Wallace Beatty, M.D.

ENGINEERING.

Professor of Civil Engineering.

[Founded 1842.]

June 30. Thomas Alexander, M.A.I.

Assistants: - Walter Elsworthy Lilly, M.A., M.A.I., Sc. D.

James Thomas Jackson, M.A.

Lecturer in the Practice of Electrical Engineering.

[Founded 1902.]

Mar. 15. William Tatlow, M.A., B.A.I.

Lecturer in Electric Traction.

[Founded 1908.]

April 20. George Marshall Harris.

Lecturer in Mechanical Engineering.

[Founded 1908.]

1903. May 23. Walter Elsworthy Lilly, M.A., M.A.I., Sc.D.

INDIAN CIVIL SERVICE.

Reader in Tamil, Telugu, Burmese, Hindi, Bengali, and Marāṭhī.

[Founded 1902.]

Dec. 10. John van Someren Pope, M.A.

Reader in Indian History.

Last Election

Nov. 20.

[Founded 1902.]

1905. Sir Lucas White King, LL.D.

MUSIC.

Professor of Music. (5)

[Founded 1764.]

1910. April 1. Percy Carter Buck, M.A., Mus. D. (Oxon.). 1915.

EDUCATION.

Professor of Education. (5)
[Founded 1905.]
[Vacant.]

Lecturer in Education. (1) [Founded 1916.]

1916. Oct. 14. James Maxwell Henry, M.A.

Public Orator.

[Founded 1879.]

1914. May 16. Robert William Tate, M.A.

Librarian. (10)

1914. Jan. 24. Josiah Gilbart Smyly, Litt.D.

Senior Assistant Librarian—Alfred Charles De Burgh. M.A. Junior Assistant Librarian—Samuel Edward Brambell. Third Assistant—William John Butler, M.A. Fourth Assistant.—Francis Stevenson Marsh, M.A., LL.B. (Joseph Hanna (Lending Library and Lecky Library). Edward Archibald Phelps.

\* Auditor.

Nov. 20. George Lambert Cathcart, M.A.

External Auditor.

1903. Oct. 17. Frank Leet, LL.D.

Last Election.

\* Registrar of the Senate.

1916. Edward Parnall Culverwell, M.A. Nov. 20. 1

Tutors' Committee.

Senior Tutors-R. Russell, M.A. G. Wilkins, B.D.

Members elected annually by the Tutors on Nov. 20.

W. E. Thrift, M.A. G. R. Webb, M.A.

H. Canning, M.A., Secretary.

\* Registrar of the Law School.

1917. William Alexander Goligher, Litt.D. Nov. 20. Nov. 3. 1

Registrar of the School of Physic. (3)

1913 Andrew Francis Dixon, M.B., Sc. D. 1918. June 24. 1

Assistant Registrar.

George Leverstone Allen. May 24. 1

\* Medical School Committee.

Thomas E. Gordon, M.B. Henry T. Bewley, M.D. Alexander C. O'Sullivan, M.D. James Craig, M.D. Andrew Francis Dixon, Sc. D. Sydney Young, Sc.D.

And the Representative of the University of Dublin on the General Medical Council (ex-officio).

\* Registrar of the Engineering School.

1901. Nov. 20. William Edward Thrift, M.A. Mar. 16. J

\* Registrar of the School of Music.

1918. Robert William Tate, M.A. June 15. 1

Registrar of the Indian and Home Civil Service School.

Nov. 20. Ernest Henry Alton, M.A. Nov. 20. 1

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UNIVERSITY AND COLLEGE OFFICERS, First Election. \*Registrar of the School of Education. 1916. James Maxwell Henry, M.A. Nov. 20. Oct. 14. j \*Registrar of the School of Agriculture. 1914. John Joly, Sc.D. Nov. 20. Nov. 20. Registrar of South African Students. 1916. Gerard Alston Exham, M.A. June 17. Lady Registrar. 1918. Olive Constance Purser, M.A. June 22. Warden of Trinity Hall. 1908. Elizabeth Margaret Cunningham, M.A. July 24. 1 Curator of the Museum. 1879. Henry William Mackintosh, M.A. Pec. 20. Director of the Botanical Gardens and Park. 1906. Henry Horatio Dixon, Sc.D. Jan 20.

Law Agent and Keeper of the Records.

Frederick Digby Darley, M.A. Nov. 11.

Assistant to the Registrar of University Electors.

James Hunter Shaw, M.A. March 8.

Accountant. .

1885. Alfred Grahame Bailey. Dec. 23.

Organist and Choir-Master.

1919. John Purser Shortt, M.A. July 21.

Gentlemen of the Choir.

Last Election.

Thomas Frederick Marchant. John Richard Morgan. Charles Kelly. Thomas Harris Watson.

James Edward Payne. James Martin. Kenneth MacGregor Greer, B.A. John Gill.

Chief Steward.

1893. Nov. 3, 1 Joseph Marshall.

Clerk of the Works.

1885. Oct. 31.

George Smith.

Booksellers.

Hodges, Figgis, and Co., Ltd., Grafton Street, Dublin. Fred. Hanna, 29 Nassau Street, Dublin. Longmans, Green, and Co., London.

# Members of School Committees.

Mathematics.—Erasmus Smith's Professor of Mathematics; the University Professor of Natural Philosophy; Erasmus Smith's Professor of Natural and Experimental Philosophy; the Astronomer Royal on the Foundation of Dr. Andrews; T. T. Gray, M.A.; W. R. W. Roberts, D.D.; E. P. Culverwell, M.A.; A. C. O'Sullivan, M.D.; R. A. P. Rogers, M.A.; J. Fraser, M.A.; G. R. Webb, M.A.; H. Thrift, M.A.; J. M. Henry, M.A. (Quorum 5.)

Classics.—The Regius Professor of Greek; the Professor of Latin; the Professor of Ancient History and Classical Archæology; the Professor of Sanskrit and Comparative Philology; T. T. Gray, M.A.; L. C. Purser, Litt.D.; A. C. O'Sullivan, M.D.; G. Wilkins, B.D.; H. S. Macran, M.A.; E. J. Gwynn, M.A.; G. A. Exham, M.A.; W. Kennedy, M.A., E. H. Alton, M.A.; R. M. Gwynn, B.D.; R. W. Tate, M.A.; A. A. Luce, B.D.; J. Johnston, M.A.; J. M. Henry, M.A.; F. La T. Godfrey, B.A. (Quorum 5.)

Hebrew and Oriental Languages.—The Professor of Hebrew; the Lecturers in Hebrew; the Examiners in Hebrew, Chaldee, and Syriac; the Professor of Arabic, Persian, and Hindustani; the Professor of Sanskrit and Comparative Philology; T. T. Gray, M.A.; E. J. Gwynn, M.A.; G. A. Exham, M.A.; R. M. Gwynn, B.D.; A. A. Luce, B.D.; John van Someren Pope, M.A. (Quorum 4.)

Mental and Moral Science.—The Professor of Moral Philosophy; F. A. Tarleton, Sc. D.; E. P. Culverwell, M.A.; A. C. O'Sullivan, M.D.; G. Wilkins, B.D.; E. J. Gwynn, M.A.; G. A. Exham, M.A.; W. E. Thrift, M.A.; G. W. Mooney, M.A.; W. Kennedy, M.A.; R. A. P. Rogers, M.A.; E. H. Alton, M.A.; R. M. Gwynn, B.D.; G. R. Webb, M.A.; R. W. Tate, M.A.; H. Canning, M.A.; A. A. Luce, B.D.; J. Johnston, B.A.; J. M. Henry, M.A.; F. La T. Godfrey, B.A. (Quorum 5.)

Experimental Science.—Erasmus Smith's Professor of Natural and Experimental Philosophy; the University Professor of Chemistry; the Professor of Applied Chemistry; W. R. W. Roberts, D.D.; E. P. Culverwell, M.A.; R. Russell, M.A.; M. W. J. Fry, M.A.; J. Fraser, M.A.; H. Thrift, M.A.; J. Joly, Sc.D. (Quorum 4.)

Natural Science.—Erasmus Smith's Professor of Natural and Experimental Philosophy; the Professor of Geology and Mineralogy; the University Professor of Anatomy and Chirurgery; the Professor of Zoology and Comparative Anatomy; the University Professor of Chemistry; the University Professor of Botany; the King's Professor of Institutes of Medicine; the Lecturer in Pathology. (Quorum 4.)

History and Political Science.—The Lecky Professor of Modern History; Erasmus Smith's Professor of Modern History; the Professor of Ancient History and Classical Archæology; the Professor of Political Economy; L. C. Purser, Litt.D.; the Lecturers for Moderatorships and

Honors in History and Political Science; the Examiners for Moderatorship in Honors in History and Political Science; Miss C. E. Maxwell, M.A. (Quorum 4.)

Modern Languages and Literature.—The Professor of English Literature; the Professor of the Romance Languages; the Professor of German; the Lecturer in Anglo-Saxon; the Professor of Sanskrit and Comparative l'hilology; the Lecturers for Moderatorship and Honors in Modern Languages and Literature; the Examiners for Moderatorship, Scholarship, and Honors in Modern Languages and Literature: E. J. Gwynn, M.A.; R. W. Tate, M.A. (Quorum 4.)

Legal and Political Science.—The Regius Professor of Laws; the Regius Professor of Feudal and English Law; the Professor of Civil Law and General Jurisprudence; the Professor of Political Economy; the Reid Professor of Penal Legislation, Constitutional and Criminal Law, and Law of Evidence; the Lecturers and Examiners for Moderatorship and Honors in Legal and Political Science. (Quorum 4.)

Celtic Languages.—The Professor of Irish; the Lecturer in Celtic Languages; the Professor of Sanskrit and Comparative Philology; Edmund Curtis, M.A. (Quorum 3.)

Law.—The Regius Professor of Laws; the Regius Professor of Feudal and English Law; the Professor of Civil Law and General Jurisprudence; the Reid Professor of Penal Legislation, Constitutional and Criminal Law, and Law of Evidence; the Registrar of the Law School. (Quorum 4.)

Physic.—The Regius Professor of Physic; the Regius Professor of Surgery; the Professor of Surgery; the University Professor of Anatomy and Chirurgery; the Professor of Comparative Anatomy; the University Professor of Botany; the Lecturer in Medical Jurisprudence; the University Professor of Chemistry; the Lecturer in Pathology; Erasmus Smith's Professor of Natural and Experimental Philosophy; the Four King's Professors; the Registrar of the School of Physic; Prof. Sir Robert H. Woods, M.Ch.; A. W. W. Baker, M.D.; Prof. Wallace Beatty, M.D.; Prof. E. A Werner, Sc.D.(Quorum 7.)

Engineering.—The Professor of Civil Engineering; the Erasmus Smith's Professor of Natural and Experimental Philosophy; the Professor of Geology and Mineralogy; the University Professor of Chemistry; the Professor of Applied Chemistry; the Donegal Lecturer in Mathematics; the Assistant to the Professor of Natural Philosophy: the Lecturer in the practice of Electrical Engineering; the Lecturer in Electric Traction; the Lecturer in Mechanical Engineering; the Registrar of the Engineering School; J. T. Jackson, M.A.; H. Thrift, M.A. (Quorum 5.)

Indian and Home Civil Service.—The Readers and Lecturers for the Indian and Home Civil Service; the Registrar of the Indian and Home Civil Service School. (Quorum 5.)

Army.—The Lecturers of the Army School of the University; the Registrar of the Army School; the Commanding Officer and the Adjutant of the Officers' Training Corps. (Quorum 3.)

Music.—The Professor of Music; the Examiners in the School of Music; the Registrar of the School of Music. (Quorum 2.)

Education.—The Professor of Education; the Professor of Moral Philosophy; the Examiners in the School of Education; the Registrar

of the School of Education. (Quorum 2.)

Agriculture.—The Professor of Zoology; the University Professor of Chemistry; the Professor of Applied Chemistry; the University Professor of Botany; Erasmus Smith's Professor of Natural and Experimental Philosophy; the Professor of Geology and Mineralogy; the Registrar of the School of Agriculture. (Quorum 5.)

# Members of the University Council.

THE PROVOST.
THE SENIOR LECTURER.
THE REGISTRAR.

(Retire 1920.)

Francis Alexander Tarleton, Sc.D. Right Hon. William Joseph Myles Starkie, Litt.D.

(Retire 1921.)

Edward John Gwynn, M.A. William Edward Thrift, M.A. Robert Russell, M.A. Matthew Wyatt Joseph Fry, M.A. George Randolph Webb, M.A. Walter Alison Phillips, M.A.

(Retire 1922.)

James Sinclair Baxter, LL.D. Andrew Francis Dixon, Sc.D. Alexander Charles O'Sullivan, M.D. John Joly, Sc.D. (Secretary).

(Retire 1919.)

Sir Ralph Sillery Benson, M.A. Sir John William Moore, M.D. Arthur Warren Samuels, LL.D. Robert Macalister, LL.D.

Ordinary Meetings of the Council are held on the first and fourth Wednesdays after the commencement of lectures in each term, but if in Hilary Term either of these days falls on Ash Wednesday, then the meetings are held on the second and fifth Wednesdays after lectures commenced. In Michaelmas Term the second meeting is held on the second Wednesday in December. In the years 1919, 1920, these Wednesdays will fall on:—Nov. 5, and Dec. 10, 1919, and Feb. 4, Feb. 25, May 12, and June 2, 1920.

# Members of the Divinity School Conneil.

- (a) THE PROVOST (Chairman).
- (b) Five representatives of the Board:-

Francis Alex. Tarleton, Sc. D.
Louis Claude Purser, Litt. D.
William Ralph Westropp Roberts, D.D.
Matthew Wyatt Joseph Fry, M.A.
Edward John Gwynn, M.A.

(c) Three Members of the Teaching Staff:-

The Regius Professor of Divinity. Archbishop King's Professor of Divinity. Hugh Jackson Lawlor, D.D.

(d) Three Representatives of the Bishops of the Church of Ireland: -

Archbishop of Armagh. Archbishop of Dublin. Bishop of Meath.

Meetings of the Council are held on the Thursday after the third Wednesday in January, February, May, and June, and on the Tuesday before the 20th of November, at 2.30 o'clock.

## Literary, Scientific, and other Societies of Trinity College.

## COLLEGE HISTORICAL SOCIETY.

FOUNDED 1770.

President—The Right Hon. Sir John Ross, Bart., LL.D., Judge of the High Court of Justice in Ireland, Chancery Division.

OFFICERS AND COMMITTEES, SESSION 1919-1920.

Auditor-C. J. L. Brock, B.A.

Treasurer-G. Harvey, B.A.

Secretaries.

E. A. Bennett (Mod.), B.A. | H. Beresford Barrett.

Librarian-W. R. Martin, B.A.

#### General Committee.

T. C. Kingsmill Moore (Sch., Sen.	P. J. Spain.
Mod.), B.A., B.L., Ex-Auditor.	H. J. L. Murphy.
J. C. Donaldson.	S. J. Ronan.
E. J. Mac Dermott, Ex-Librarian.	F. M. O'Connor,

#### Library Committee.

J.	R.	Halpin.	H. F. Molony
R.	H	. M'Keag.	P. J. Ward.

## MEDALS-WAR PERIOD.

Oratory-Gold,						C. J. L. Brock, B.A.
Silmon						J. V. Bateman.
Silver,	•	•	•	•	•	J. C. Donaldson.

# Composition | [Not yet awarded.]

There are connected with the Society a Reading and Writing Room, Library, and Billiard Room. Cap and Gown boxes are provided.

A number of newspapers, magazines, and reviews are taken in the Reading Room.

Gold and Silver Medals are annually given for Oratory, Composition,

and History.

The Opening Meeting of the Session is held on the first Wednesday in November, and Debates take place in the New Debating Hall, Graduates' Memorial Building, every Wednesday evening during Term from November to June. The Debates are open to the Public.

All Students of the University are eligible as Members of the Society.

Annual Subscription, £1 1s.

Members of the Society are Honorary Members of the Oxford and Cambridge Unions, Edinburgh Speculative Society, and Durham Union. Further information can be obtained by applying to either of the Secretaries, at the Society's Rooms, Graduates Memorial Building, Trinity College.

## UNIVERSITY PHILOSOPHICAL SOCIETY. FOUNDED 1853.

#### SESSION 1919-1920.

President.—J. C. Davis (Sch., Sen. Mod.), B.A. Secretary.—W. H. B. Mack (Sch.).
Treasurer.—J. Tate (Sch.).
Librarian.—J. L. Woods.
Registrar.—W. G. Maule.

#### Council.

C. H. Rowe (Sch., Sen. Mod.),
B.A., Univ. Stud. (Ex-Pres.).
G. S. B. Mack (Sch.) (Ex-Sec.).
W. G. West (Sch.) (Ex-Treas.).
W. N. M'William (Sch.) (Ex-Lib.).
L. D. Whitfield (Ex-Regis.).
K. C. Bailey (Sch.),
J. Bell (Sch.).
G. H. Davis.
W. A. Laidlaw.

#### Associate Seats on Council.

E. W. Greening (Mod.), B.A. B.C. Waller (Ex-Sch., Sen. Mod.), (Ex-Pres.).

#### MEDALS.

#### SESSION 1918-1919.

Composition—President's Gold Medal, , , , , Society's Silver Medal, } [Not awarded yet.]

Oratory—Gold Medal, . . . . J. C. Davis (Sch., Sen. Mod.), B.A. (Ex-See.).

,, Silver Medal, . . . . G. S. B. Mack (Sch.) (Ex-See.).

There are connected with the Society a Reading and Writing Room, Billiard Room, and Library. Boxes for Academicals are available for the use of Members.

The Reading and Writing Room is furnished with Stationery, and contains a series of the College Calendars and Examination Papers.

The leading newspapers, reviews, magazines, and other periodicals

are taken by the Society.

The Opening Meeting will be held on 13th November. Ordinary Meetings take place in the Debating Hall, every Thursday Evening during Term, from November till June, when Papers are read and discussed by Members.

A Gold and a Silver Medal are offered annually in Composition; a Gold and a Silver Medal in Oratory; a Gold and a Silver Medal in History and Literature; and a Silver Medal in Æsthetics.

Annual Subscription, . . . . £1 1s.

Further information can be obtained on application to the Honorary Secretary, at the Rooms of the Society, Trinity College.

### COLLEGE THEOLOGICAL SOCIETY. FOUNDED 1830.

#### SESSION 1919-1920.

#### President.

The Rev. the Regius Professor of Divinity.

#### Vice-Presidents.

Rev. Archbishop King's Pro- | Rev. T. T. Gray, M.A., fessor of Divinity. Rev. the Professor of Hebrew. Rev. the Prof. of Pastoral Theology. Rev. the Professor of Ecclesiastical History.

Rev. the Prof. of Biblical Greek. School Hostel.

S.F.T.C.D. Rev. W. R. W. Roberts, D.D., S.F.T.C.D. Rev. J. G. Carleton, D.D. Rev. D. C. Green, B.D. Rev. E. J. Young, B.D. Rev. the Warden of the Divinity | Rev. A. A. Luce, B.D., F.T.C.D.

> Auditor-J. K. Beattie, B.A. Secretary .- Rev. A. Hobson (Mod.), B.A. Treasurer.—F. C. Parkes, B.A. Librarian.—W. H. Coulter, B.A.

#### Committee.

Members,

\*\* Ex-Officio ' The President.
The Vice-Presidents. The Officers of the Society. The Ex-Auditor, Rev. B. W. Horan, B.A. Rev. E. Mitchell, B.A. E. P. Mills, B.A. Rev. E. L. Ledwidge, B.A. Rev. J. J. Butler, B.A.

#### AWARDS.

SESSION 1918-1919.

Oratory.—Rev. J. Roberts, B.A. Composition .- Rev. F. J. Sinnamon, B.A. President's Prize Essay .- W. H. Coulter, B.A.

Divinity Students and those who intend to enter the Divinity School are eligible as Members of the Society.

Annual Subscription, . . . 5s. 0d. . 2s. 6d. Entrance Fee,

Silver Medals are annually given for Oratory and Written Composition. The President also gives a Prize for an Essay on a given subject. The Opening Meeting of the Session is held on the first or second Monday in November. Ordinary Meetings take place every Monday Evening during Divinity Term, at 8 o'clock, when Papers are read and discussed by members. The Society possesses a valuable Library of Theological books. Further information regarding the Society can be obtained on application to the Honorary Secretary, at Committee Room, Graduates' Memorial Buildings, Trivity College.

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#### UNIVERSITY BIOLOGICAL ASSOCIATION.

(FOUNDED 1873.)

Session, 1919-1920.

President - Bethel Solomons, M.D., F.R.C.P.I.

Record Secretary-E. C. H. Allen (Med. Sch.), B.A.

Corresponding Secretary—Captain G. H. Davis, B.A., Sir Patrick Dun's Hospital.

Treasurer-J. A. Acheson, B.A.

Assist. Treasurer-V. O. M'Cormick.

Librarian-R. N. Perrot.

Council: above with-

Seton Pringle, M.D., F.R.C.S.I.
J. T. Wigham, M.D., F.R.C.P.I.
W. B. Boxwell, M.D., F.R.C.P.I.
A. A. M'Connell, M.B., F.R.C.S.I.
G. P. Meldon, M.D., F.R.C.S.I.
E. W. S. Deale, B.A.
C. E. M'Quade, B.A.
W. B. Fox, B.A.

E. G. Campbell, B.A.
T. Radloff.
W. N. Smith.
C. J. U. Murphy.
A. G. Bewley.
R. H. Micks (Sch., Sen. Mod.),
B.A., Univ. Student.
H. Rollins.

The object of the Association is the encouragement of Original Investigation in Biology, including Pathology, Therapeutics, and the allied Sciences.

All past and present Members of the University taking an interest in

Science or Medicine are eligible for Membership.

Meetings, at which Papers are read, and objects of interest—Microscopic and otherwise—are exhibited, are held, two each month, from November to April. Tea at 8 p.m. Chair taken at 8.15 p.m.

A Silver Medal is awarded at the close of the Session for the most meritorious Paper read at any of the Ordinary Meetings of the Association. All Members shall be qualified to compete who, at the date of reading such Paper, shall not have taken their full qualifications in Medicine and Surgery.

Members desiring to read Papers, or to exhibit objects of interest, are requested to communicate with the Corresponding Secretary.

Members may introduce two Visitors at any Ordinary Meeting.

Annual Subscription, Five Shillings. No Entrance Fee.
A Reference Library and Reading Room has been started in the Graduates' Memorial Buildings for the convenience of Members-Keys can be obtained from the Librarian at a rental of 1s. 6d. per annum, on deposit of 1s.

### UNIVERSITY EXPERIMENTAL SCIENCE ASSOCIATION.

#### FORTIETH ANNUAL SESSION, 1919-1920.

Patron.
The Provost.

President.

President.
E. A. Werner, Sc.D., F.C.S., F.I.C.
Vice-Presidents.

F. A. Tarleton, Sc.D., S.F.T.C.D.
Thomas Alexander, M.A.I.
E.P. Culverwell, M.A., S.F.T.C.D.
J. Joly, Sc. D., F.R.S., F.T.C.D.
W. G. Smith, M.D.
H. H. Dixon, Sc.D., F.R.S.
W. E. Thrift, M.A., F.T.C.D.
M. W. J. Fry, M.A., F.T.C.D.
Rev. W. R. W. Roberts, D.D.,
S.F.T.C.D.

J. R. Cotter, M.A.
Sydney Young, Sc.D., F.R.S.
Harry Thrift, M.A., F.T.C.D.
H. C. Plummer, M.A. (Oxon.).
W. R. G. Atkins, Sc.D.
J. T. Jackson, M.A., M.A.I.
H. H. Poole, Sc.D.
L. B. Smyth, Sc.B.
W. Tatlow, M.A., B.A.I.

Hon. Record Secretary-H. Bowers (Sch.), 28, College.

Hon. Correspondence Secretary.
 A. C. Williams (Sch.), 19, Melrose Avenue, Clontarf.
 Hon. Treasurer—L. D. Whitfield, 2, College.

Hon. Librarian-Miss L. R. Judge (Sch.), 6, College.

Council.

Miss M. E. Copeland. Miss D. F. H. Lavelle. Miss M. E. M'Donald (Sch.). K. C. Bailey (Sch.).
J. Bell (Sch.).
C. E. Gibson (Sch.), L.C.E.

The object of the Association is the encouragement of investigation in all branches of Experimental Science.

General Meetings are held at intervals during Term, for reading Papers and exhibiting Experiments, in the Physical Laboratory, Trinity College, Dublin. The Chair is taken at 8 p.m., tea being provided by the Association at each Meeting. Members have the privilege of bringing one guest to each General Meeting.

This Association and the University Biological Association jointly possess an Electric Lantern and Projecting Microscope (obtained at a cost of about £150, which was defrayed by private subscription aided by a College Grant). Lantern Exhibitions, open to all Students of Trinity College, are held at short intervals during Term. They com-

mence at 8 o'clock.

The Association possesses a Library in the Physical Laboratory, which includes works on Medicine and Engineering as well as on Experimental and Natural Sciences, and which may be borrowed on application to the Hon. Librarian. A number of Scientific and Medical Journals are subscribed to, and may be consulted in the Library. In conjunction with the University Biological Association, the Association also possesses a Reading Room in the Graduates' Memorial Building.

All Graduates as well as Undergraduates of the University are eligible for Membership. The Annual Subscription is 5s. No Entrance Fee. Prizes are offered annually for Papers given by Junior Members. Further information may be obtained on application to any of the officers.

## DUBLIN UNIVERSITY ENGINEERING STUDENTS' SOCIETY.

#### President.

Thomas Alexander, M.A.I.

Vice-Presidents.

The Provost.

Francis Bergin, B.A., B.A.I.
John Fraser, M.A., F.T.C.D.
Sir John P. Griffith, M.A.I.
G. M. Harriss, M.Inst.E.E.
Arthur Hassard, B.A., M.A.I.
J. T. Jackson, M.A., M.A.I.
John Joly, Sc.D., F.R.S., F.T.C.D.
C. B. Jones, B.A., L.C.E.

W. Kaye-Parry, M.A., B.A.I. W. E. Lilly, M.A.I., Sc.D. R. A. P. Rogers, M.A., F.T.C.D. William Tatlow, M.A., B.A.I. W. E. Thrift, M.A., F.T.C.D. E. F. C. Trench, M.A., B.A.I. E. A. Werner, Sc.D., F.C.S. Sydney Young, Sc.D., F.R.S.

Hon. Secretary.

H. B. Weldon.

Hon. Treasurer.

W. Fitzsimmons.

#### Committee.

T. W. B. Chapman, H. J. Smyth,	Senior Class.
A. Kennedy, R. S. Hay,	Middle Class.
R. G. Bourke, C. H. Wilson,	Junior Class.

The object of the Society is the discussion of subjects of Professional interest. Prizes are awarded annually in each Class.

Meetings are held once a fortnight in the Engineering School Buildings for the reading of Papers. Chair taken at 8 p.m.

All Students of the School of Engineering are eligible for Membership.

Further information can be had from any of the Officers of the Society.

## UNIVERSITY OF DUBLIN CHORAL SOCIETY.

(FOUNDED NOVEMBER, 1837.)

Patron.

His Majesty the King.

Vice-Patron.

The Earl Iveagh, LL.D., K.P., Chancellor of the University.

President.

The Provost.

#### Vice-Presidents.

The Rt. Hon. William Drennan Andrews, LL.D. The Rt. Hon. Mr. Justice Madden, LL.D.

The Rt. Hon. Mr. Justice Gibson, M.A.

Sir Robert Woods, Knt., M.D., M.P. J. R. Scott, B.A., D.L.

#### Committee.—Season 1919-1920.

The Junior Dean of Trinity College (Ex-officio).

W. H. Warnock, B.A., Hon. Sec. H. P. Mayne, B.A., Hon. Treas. R. Grove-White, B.A. (Ex-Sch.), Hon. Orch. Reg.

J. L. Woods, Hon. Lib. and Reg. T. Henry Maxwell, K.C., LL.D.

T. Fred. Figgis, LL.D.

#### Auditors.

Robert Macalister, LL.D.

| T. Henry Maxwell, LL.D.

#### Conductor.

Charles G. Marchant, Mus. Doc.

SEASON .- OCTOBER, 1919, TO JUNE, 1920.

Members of the Band meet for Practice on Thursday, and Members of the Chorus on Friday, both at 4 o'clock. Evening Practices are also held during Term time.

	Subscription :- Performing Member,	£1	1	0	per annum.
0	Non-Performing Member,	1	10	0	31
	Lady Associate,	0	15	0	22
	Orchestral Associate			0	,,
	Non-performing Associate,	0		6	"

All persons who have entered the University of Dublin, of Oxford, or of Cambridge, are eligible for Membership.

Further information may be obtained from the Hon. Sec., Committee Rooms, No. 4, Trinity College, on Practice Days.

## COLLEGE CLASSICAL SOCIETY.

FOUNDED 1906.

#### SESSION 1919-20.

Patron.

Right Hon. Dodgson Hamilton Madden, L.L.D., LITT.D.

Vice-Patrons.

Rev. T. T. Gray, M.A., S.F.T.C.D. Right Hon. Sir John Ross, Bart., LL.D.

President.

L. C. Purser, LITT.D., S.F.T.C.D.

Officers and Committee.

Auditor.—W. H. B. Mack (Sch. Secretary.—K. C. Bailey (Sch. Treasurer.—J. Tate (Sch.). Librarian.—E. C. Micks.

#### Council.

- L. J. D. Richardson (Sch., Sen. Mod.), B.A., Univ. Stud. (Ex-Aud.).
- J. C. Davis (Sch., Sen. Mod.), B.A.
- J. C. Donaldson (Sch.). A. T. I. Ford (Sch.).
- G. S. B. Mack (Sch.).
  T. Megarry (Sch.).

W. A. Laidlaw (Sch.).

This Society has been established for the promotion of Classical study, and especially of original work. It possesses a considerable Lending Library for the use of Members, consisting of texts, the best-known editions, books of reference, and general works on the history and literature of Greece and Rome, and including almost all books prescribed in the Classical Course.

The Society holds a suite of rooms in No. 7, comfortably furnished as reading-rooms.

Meetings are held on each Friday evening in Lecture Term: at these meetings Essays are read, followed by a discussion of any original or interesting view that arises. Lantern evenings are also held at intervals. Prizes are offered for the best Essays read during the year, and for sets of compositions and translations.

The Annual Subscription is 5s. for Members of Freshman standing; 7s. 6d. for all other Members.

#### UNIVERSITY ELIZABETHAN SOCIETY.

FOUNDED 1905.

SESSION 1919-1920.

President.

Mrs. Madden.

Secretaries.

N. Burt.

M. Olphert.

Treasurers.

B. Armstrong. | D. Bingham.

House-Officer. M. Moore.

Librarian.

K. Thompson.

Committee.

Members.

M. Copeland (Ex-Sec.). A. M'Meekin (Ex-Sec.).

V. Whitfield (Ex-Treas.). L. E. Smith (Ex-H.-Off.).

M. Stevenson.

M. Powell.

A. Downing. M Disney.

There are connected with the Society a Reading and Writing Room, a small Library, and a Lunch and Tea Room.

The Writing Room is furnished with Stationery, and the leading newspapers, reviews, magazines, and other periodicals are taken by the

Society. The Library contains a selection of standard works.

Lunch and Tea may be obtained in the Lunch Room; and Members

have the right of introducing Visitors.

All Women Students of the University are eligible as Members of the Society.

Further information can be obtained by applying to either of the Secretaries, at the Society's Rooms, 6, Trinity College.

### TRINITY COLLEGE CHURCH MUSICAL ASSOCIATION.

1919-20.

Patron.

The Provost.

Vice-Patrons.

The Regius Professor of Divinity.

The Archbishop King's Professor of Divinity.

President.

The Rev. H. J. Lawlor, D.D., Litt.D.

Choirmaster.

Rev. J. P. Shortt, M.A.

Organist.

S. Mann.

Honorary Secretary.
A. T. I. Ford.

Honorary Secretary for Women Students.
Phyllis Aykroyd.

Honorary Treasurer for Women Students.
Angel Rainsford (Sch.).

Honorary Treasurer.

H. R. V. Foster.

Honorary Librarian. C. W. A. Huston.

Committee.

Ivy G. Anderson. W. G. Coleman. R. R. Figgis. A. Hobson, B.A. A. Eileen Moore. Joy W. Spielman.

The object of the Association is the encouragement of the study of Church Music amongst Students, and especially amongst Divinity Students, to enable them later to take an active interest in the Music of their Parish Churches.

The Choirmaster of the College gives instruction in part-singing to the members on two days in each week (Friday, at 12 noon, and Tucaday, at 2.45 p.m.) in Michaelmas and Hilary Terms. During these Terms, Evensong, on Tucadays, at 4 o'clock, is rendered chorally, the Members of the Association forming the Choir.

Individual instruction in intoning is also given during Trinity Term

to as many Members as desire it.

Certificates are granted to Members of the Association who regularly attend the Services and Practices for three Terms, and pass a satisfactory Examination in Church Music in Trinity Term.

Annual Subscription, One Shilling.

#### NEOPHYTE DEBATING SOCIETY.

1919-20.

#### President

J. M. Henry, M.A., F.T.C.D.

#### Vice-Presidents.

E. H. Alton, M.A., F.T.C.D.
J. Johnston, M.A., F.T.C.D.
I. Roundtree, B.L., LL.B.
Capt. T. D. M. Bartley.
B. C. Waller (Sch., Sen. Mod.),
B.A.
L. J. D. Richardson (Sch., Sen.
Mod., Univ. Stud.).

D. H. Cole (Mod.), B.A.
H. M. O. White (Ex-Sch.),
Sen. Mod., B.A.
Rev. W. C. de Pauley. (Sen.
Mod.), B.A.
T. C. Kingsmill Moore (Sch.,
Sen. Mod.), B.A.

Hon. Secretary. P. G. Boyd.

#### Committee.

G. S. B. Mack. J. V. Bateman. C. J. L. Brock. A. T. I. Ford. E. MacDermott. H. W. L. Dale. I. F. D. Morrow.

The Society was founded to afford Freshmen practice in speaking, and so act as a sort of training-ground for the Senior Debating Societies.

Meetings are held in No. 22 on Mondays during Michaelmas and Hilary Terms. The Chair is taken at 8 p.m.

Students below Senior Sophister standing are eligible for Membership, and become Members on payment of the Subscription (2s. 6d.) to the Hon. Secretary.

A Silver Medal is awarded annually in Oratory.

## DUBLIN UNIVERSITY STUDENT CHRISTIAN MOVEMENT.

1919-1920.

MEN's Union (founded 1889).

President.

J. M. Henry, M.A., F.T.C.D.

Vice-Presidents.

F. A. Tarleton, L.L.D., S. F.T.C.D. E. P. Culverwell, M.A., S.F.T.C.D.

Prof. R. Russell, M.A., F.T.C.D. Professor W. E. Thrift, M.A.,

F.T.C.D.

W. Kennedy, M.A., F.T.C.D. Professor H. T. Bewley, M.D. Rev. A. H. M'Neile, D.D. Professor H. W. Mackintosh, M.A. Professor S. Young, Sc. D. Professor W. F. Trench, Litt.D.

Rev. W. Crawford, M.A. Rev. R. K. Hanna, B.A. Rev. T. Tatlow, M.A.

J. T. Wigham, M.D.

Chairman.

Rev. A. Hobson, B.A.

Hon. Secretary. J. Bell (Sch.).

Hon. Treasurer. K. C. Bailey (Sch.).

Executive Committee.

Officers, with: - P. G. Boyd, C. E. Brunton, B.A., H. V. Exner, C. W. A. Huston, J. E. M'Cormick, J. P. de Villiers.

Women's Union (founded 1905).

President.

T. Tichborne.

Hon. Secretary. A. M'Meekin.

Hall Secretary. M. Copeland.

Bible Secretary. H. Watson.

Social Secretary.

M. Powell.

Prayer Secretary. M. Olphert.

Missionary Secretary.

L. Stewart.

House Officer.

D. Booth.

Librarian.

B. Lawler.

Hon. Treasurer.

K. Leslie.

The object of the Movement is to unite students in Christian fellowship, to promote prayer and Bible study, and to bring before its members the Christian solution of social problems and the need for the evangelisation of the world.

Meetings and study circles are held frequently during Term. Applications for membership will be gladly received by the Secretaries.

The two branches of the Movement in Trinity College form units in the World's Student Christian Federation, which binds together in one body Christian unions in Universities and Colleges all over the world.

# DUBLIN UNIVERSITY CALENDAR.

# Introduction.

# UNIVERSITY OF DUBLIN, TRINITY COLLEGE.

§ I. THE UNIVERSITY OF DUBLIN was founded by Queen Elizabeth, A.D. 1591. On the third day of March in that year, a College was incorporated by Charter or Letters Patent, as "the Mother of an University," under the style and title of "The College of the Holy and Undivided Trinity, near Dublin, founded by Queen Elizabeth."

Previous to the year 1873, the Provostship, Fellowships, and Foundation Scholarships of Trinity College could only be held by Members of the Church of Ireland. This restriction was sanctioned by Parliamentary enactments in the case of the Provostship and Fellowships (33 Geo. III. c. 21). With regard to the Foundation Scholarships, the limitation arose solely from certain provisions in the College Statutes. All these restrictions were removed by the Act 36 Vict. c. 21. The preamble to this Act recites that it is expedient "that the benefits of Trinity College, and the University of Dublin, and of the schools in the said University, as places of religion and learning, should be rendered freely accessible to the nation," and that all restrictions, tests, and disabilities should be removed.

§ II.—GOVERNMENT.—Subject to the control of Acts of Parliament and Royal Statutes, the government is in the hands of the Board, in conjunction with the Visitors, but in most matters relating to education, as specified in detail below, it acts conjointly with the Council, and in matters relating to the conferring of Degrees, the sanction of the Senate is required.

• For an account of the various Charters and Royal Letters affecting Trinity College see "Statuta Collegii atque Universitatis Dubliniensis."

Statute Concentration Control of the Control of the

<sup>\*&</sup>quot;Unum Collegium mater Universitatis . . . pro educatione, institutione et instructione juvenum et studentium in artibus et facultatibus, perpetuis futuris temporibus duraturum, et quod erit et vocabitur Collegium Sanctæ et Individuæ Trinitatus, juxta Dublin, a seremissimà Reginà Elizabethà fundatum."—Charta Req. Euz. anno regni tricestino quarto.

The Board consists of the Provost and seven Senior Fellows, and the Fellows, if any, other than Senior Fellows, who may be elected by the Board to the office of Bursar, Senior Lecturer, or Registrar, together with two representatives of the Junior Fellows, and two representatives of the Professors.

The Visitors are the Chancellor of the University (or, in his absence, the Vice-Chancellor) and the Lord Chief Justice of

Ireland.

The Senate, or Public Congregation, of the University, consists of the Chancellor, or, in his absence, of the Vice-Chancellor, or Pro-Vice-Chancellor for the time being, and such Doctors or Masters of the University as keep their names on the books of the College in accordance with such regulations as the Board may enact. (See p. 23.)

The Caput of the Senate consists of the Chancellor, or Vice-Chancellor, or Pro-Vice-Chancellor, the Provost, or, in his absence, the Vice-Provost, and the Senior Master non-regent,<sup>a</sup>

who is elected by the Senate.

The Senate is convened only by the Chancellor, or, in his absence, the Vice-Chancellor or Pro-Vice-Chancellor, each of whom, when presiding, has power to adjourn or dissolve its meetings, and has a casting vote. The Chancellor, or in his absence, the Vice-Chancellor or Pro-Vice-Chancellor, is bound to convene the Senate, on a requisition presented to him by the Board, and the Senate shall meet at such time, and for such

purpose, as shall be stated in such requisition.

Whenever the office of Chancellor becomes vacant, the Board must, within one calendar month, propose to the Senate the names of three persons, from amongst whom the Senate must elect a Chancellor within one month from the day of such proposal. In computing these periods, the interval between the 1st of July and 1st of October shall not be taken into account, nor shall an election take place during such interval. If the Senate decline or omit to elect, the nomination of the Chancellor passes to the Crown. The Vice-Chancellor continues to hold his office during the vacancy of the office of Chancellor, and, during such vacancy, has power to convene the Senate for the purpose of electing a Chancellor, and has authority to exercise all the functions and duties of the Chancellor, until the election of the Chancellor.

The Vice-Chancellor, if unable to attend any of the meetings of the Senate, is empowered, by writing under his hand andseal, to appoint a Pro-Vice-Chancellor for that special occasion.

The Board has power to alter, amend, and repeal all laws, rules, or by-laws heretofore existing, and to make new rules and

<sup>\*</sup>Each Master in Arts is called a regent during the three years following the time he took that Degree. The name originated from the duty formerly imposed on such Masters of regulating the disputations of the Schools.

laws, from time to time, for the more solemn conferring of Degrees by the Senate; provided always that no such new laws, or alteration of existing laws, shall be of force or binding upon the University, until they shall have received the sanction of the Senate lawfully assembled.

No law, rule, by-law, or grace whatsoever, for the conferring of Degrees, or any other purpose, can be proposed to the Senate, which has not been first proposed to and adopted by the Board. The Chancellor or Vice-Chancellor presiding is empowered to prohibit any such law or grace from being proposed to the Senate.

Gowns are worn at meetings of the Senate.

The Council consists of the following members:—The Provost, or, in his absence, the Vice-Provost; the Senior Lecturer; the Registrar; and sixteen members of the Senate, namely:—two elected by the Board; six elected by all of the Junior Fellows and those of the Professors and of the King's Professors appointed to lecture or examine in the Schools in Arts as hereinafter defined; one elected by those of the Junior Fellows and Professors appointed to lecture or examine in the School of Law; two elected by those of the Junior Fellows and Professors appointed to lecture or examine in the School of Physic; one elected by those of the Junior Fellows and Professors appointed to lecture or examine in the School of Engineering; four members elected by all the members of the Senate.

The Schools in Arts consist of the following Schools, viz.:—The School of Mathematics, the School of Classics, the School of Hebrew and Oriental Languages, the School of Mental and Moral Science, the School of Experimental Science, the School of Natural Science, the School of History and Political Science, the School of Modern Languages and Literature, the School of Legal and Political Science, the School of Celtic Languages, and such other Schools in Arts as may hereafter from time to time be

established.

The Council nominates to all Professorships, except those the nomination to which is vested in some other body or persons by Act of Parliament, or by the directions of private founders, and except also the Professorships in the School of Divinity. Such nomination is subject to the approval of the Board. In the event of the Board refusing its approval to the nomination of the Council, the Chancellor decides whether the grounds for such refusal are sufficient. If they appear to him to be insufficient, he declares the person nominated by the Council to be duly elected. If not, the Council proceeds to a fresh nomination. If no election shall take place within the space of six calendar months from the date of the vacancy, or from the time of the creation of any new Professorship, the right of nomination and election for the purpose of

filling up such vacancy, or of appointing to such new Professorship, lapses to the Chancellor. No person, being at the time a member of the Council, shall be nominated by the Council to any

Professorship.

Except so far as is otherwise provided by Act of Parliament, or by direction of private founders, any proposed new rules or regulations respecting studies, lectures, and examinations (other than those connected with the School of Divinity, with which the Council has no authority to interfere), and also any proposed new rules or regulations respecting the qualifications, duties, and tenure of office of any Professor in any Professorship now existing, or hereafter to be constituted, except the Professors and Professorships connected with the said School of Divinity, and any proposed alterations in any existing rules or regulations respecting such studies, lectures, and examinations, qualifications, duties, and tenure of office, save as aforesaid, require the approval both of the Board, and of the Council.

All such new rules and regulations and alterations in any rules or regulations may be originated either by the Board, or by the

Council.

No new Professorship can be created or founded by the Board without the consent of the Council.

§ III. TEACHING.—The Examining Staff consists of the Provost, Fellows, and Professors.

The Lecturing Staff consists of the Junior Fellows and Pro-

fessors.

The greater part of the teaching in the obligatory Courses in Arts is performed by the Junior Fellows. To Professors selected from among them is entrusted for the most part the instruction which is given in the highest departments of these Courses. Special

Lecturers are selected to lecture Candidates for Honors.

From the early Statutes it would seem to have been originally intended that the Fellows should carry on the special instruction required by Students desirous of qualifying themselves for particular Professions. But the growing requirements of the Professional Schools, especially the Medical, prevented this design from being carried out, and the special instruction required for the Professional Schools of Divinity, Law, Medicine, Engineering, the Army, and Agriculture is now, for the most part, delivered by Professors elected to teach special subjects.

Outside the regular Courses in Arts, and the branches of study required in the Professional Schools, there are various departments of learning for the cultivation of which Professorships have been

from time to time founded.

§ IV. DEGREES are publicly conferred by the Chancellor or Vice-Chancellor, in the Senate or Congregation of the University.

The Grace of the House for a Degree in any Faculty having

first been granted by the Board, must pass the Caput before it can be proposed to the rest of the Senate, and each member of the Caput has a negative voice. If no member of the Caput objects, the Proctor, in a prescribed form of words, supplicates the Congregation for their public Grace; and, having collected their suffrages, declares the assent or dissent of the House accordingly; if the placets be the majority, the Candidates for Degrees are presented to the Senate by the Regius Professor of the Faculty in which the Degree is to be taken; or, if it be a Degree in Arts, by one of the Proctors: they then advance in order before the Chancellor, who confers the Degree according to a formula fixed by the University Statutes, and after which the Candidates then subscribe their names in the Register.

Public Commencements for the conferring of Degrees are held four times in each year on days published in the Almanac. Diploma is sometimes given to those who are fully qualified for a Degree, but whose circumstances may render it inconvenient for them to wait for the public Comitia; but such persons can exercise none of the rights and privileges connected with their Degree until they have appeared at Commencements, and have had the Degree publicly conferred on them by the Chancellor or Vice-Chancellor. An exception to this rule may be made in favour of candidates when the circumstances which prevent their appearing in person are of a sufficiently grave or exceptional nature. (See page 16.)

A meeting of the Senate for the consideration of names proposed for Honorary Degrees is held at the end of Hilary Term, to which attention is called a week before by notice on the College gate.

The following Regulations with regard to the order to be observed in conferring Degrees at the Public Commencements

have been sanctioned by the Vice-Chancellor:-

- I. The Chancellor announces the opening of the Comitia. the Winter Commencements the Senior Master non-regent is elected, on the proposition of the Chancellor and the Provost; and the two Proctors and the Registrar make the statutory affirmation.
- 11. The Senior Proctor supplicates for the Licenses in Medicine, in Surgery, and in Engineering. The Junior Proctor supplicates for the Degrees of Bachelors in Arts. The Senior Proctor supplicates for the other ordinary Degrees.
- III. The Senior Lecturer introduces the Moderators to the Chancellor, who presents them with their Medals. The Senior Lecturer introduces the Respondents to the Chancellor, who presents them with their Certificates.

<sup>\*</sup> See the forms of presentation and supplication, and also the forms of suspension and absolution, in the University Statutes.—Stat. Univ. after cap. xi. The forms for conferring Degrees are given in cap. v.

- IV. Licenses in Medicine, in Surgery, and in Engineering are conferred.
- V. Candidates for Honorary Degrees are presented to the Senate and admitted by the Chancellor.
- VI. Candidates for Ordinary Degrees are presented and admitted. Candidates in Arts are presented by the Proctors: other Candidates by the Professors of their respective faculties. In presenting the Candidates the following order is observed:
  - 1. Bachelors in Music who are | 13. Masters in Letters. not Graduates in Arts.
  - 2. Doctors in Music who are not Graduates in Arts.
  - 3. Bachelors in Arts.
  - 4. Bachelors in Agriculture.
  - 5. Bachelors in Science.
  - 6. Bachelors in Dental Science.
  - 7. Bachelors in Music who are Graduates in Arts.
  - 8. Bachelors in Engineering.
- 9. Bachelors in Obstetric Science.
- 10. Bachelors in Surgery.
- 11. Bachelors in Medicine.
- 12. Bachelors in Laws.

- 14. Masters in Science.
- 15. Masters in Dental Science.
- 16. Masters in Engineering. 17. Masters in Obstetric Science.
- 18. Masters in Surgery.
- 19. Masters in Arts.
- 20. Bachelors in Divinity. 21. Doctors in Music who are
- Graduates in Arts. 22. Doctors in Literature.
- 23. Doctors in Science.
- 24. Doctors in Medicine.
- 25. Doctors in Laws.
- 26. Doctors in Divinity.

No Grace for a Degree will be presented to the Senate unless the Candidate shall have communicated with the Proctor at latest the day before the Commencements.

# Terms and Exercises required for the several Dearces.

To take the Degree of Bachelor in Arts, the Student must keep the Terms required by the Rules of the College. He must pass two stated Examinations—one at the end of his second year, the other at the termination of the University Curriculum.

A Master in Arts must be a B.A. of three years' standing.

When the time at which a higher Degree can be taken is said to be reckoned from the taking of the Degree of Bachelor in Arts, or in any Faculty, the time may be reckoned from the date at which, according to the laws and statutes of the University, the Degree of Bachelor might have been taken. Thus a Candidate is of proper standing to take the Degree of M.A. three years after he has passed the Examination for the B.A. Degree. With this condition, the inferior and superior Degree may be taken on the same day.

In the case of a candidate for a higher Degree whose studies have been interrupted owing to his having served with H. M.

Forces, 1914-18, upon his completion of the required exercises, the date when these exercises might, in the opinion of the Board, have been completed, if he had proceeded regularly with his course, will be accepted as the date of his qualifying for the lower Degree.

The qualifications for the Degree of Bachelor in Science (Sc.B.) shall be research and advanced study in any important branch of

Mathematical, Experimental, Natural, or Applied Science.

A Graduate of the University of Dublin, having obtained Moderatorship in Mathematics, Experimental Science, or Natural Science, may present himself for the Degree of Sc.B. one full year after graduation, provided he shall during that year have devoted himself to any important branch of Mathematics, Physics, Natural or Applied Science, both by advanced study and by research. The latter, when of an experimental or observational nature, must be carried on, as far as practicable, in the Laboratories of the College; or in Laboratories recognized by the Board and Council.<sup>a</sup>

A Graduate of any other approved University who possesses a Degree the equivalent of Moderatorship, having spent a full year in residence in the University of Dublin, and having during that time pursued one of the branches of Mathematics, Experimental, or Natural Science, by advanced study and research, as defined above, shall be eligible to present himself for the Degree of

Sc. B.

A Graduate of the University of Dublin who has not obtained a Moderatorship, or a Graduate of any other approved University, may qualify himself for entry upon the course of study and research by presenting himself at the Moderatorship Examination which embraces the subject of his intended studies, and obtaining such marks thereat as would qualify for Moderatorship.

The Candidate will be required to submit, in writing, to the Registrar a statement of the course of study and research which he desires to pursue, that it may be laid before the Board for

approval.

The proficiency of the Candidate in the branch of Science which he has selected shall, at the close of his year of study, be tested by Examination. The Examiners shall be selected by the Board, and may include one or more who are not members of the

College staff.

The Candidate shall submit to the Registrar, not less than one fortnight before the date of the Examination, a Thesis (type-written or in print) giving an account of his research, and shall at the same time forward to the Bursar the sum of five pounds, and the Board shall submit this Thesis to Referees. The Referees and Examiners shall present a joint report to the Board upon the merits of the Candidate, not less than one

<sup>\*</sup>The Laboratories of the Royal College of Science, Dublin, are recognized under this scheme.

week before the date of Conferring of Degrees. In the event of the Degree being granted, the above payment will be allowed as part payment of the Degree fee of ten pounds to the Senior Proctor.

The following Scale of Fees for Extern Students preparing for the Sc.B. Degree was approved by the Board on April 26,

913:-

- A. If the candidate proposes to present himself at the Moderatorship Examination in order to obtain the necessary qualification, he shall pay:—(a) £3 10s. for each Term prior to qualifying at that Examination during which he attends the College Laboratories; (b) £9 3s. prior to presenting himself at the Moderatorship Examination; (c) £2 2s. for each Term subsequent to his qualifying at the Moderatorship Examination during which he attends the Laboratories.
- B. If the candidate does not present himself at the Moderatorship Examination, he shall pay £3 10s. for each Term during which he attends the College Laboratories.

Master in Science.—A candidate for the Degree of Master in Science (Sc.M.) must either (a) be a graduate of the University who has taken Moderatorship in Mathématics, Experimental Science, or Natural Science, or has obtained the Degree of Sc.B., or such honours, or done such work in the Laboratories during his Undergraduate course, as shall show his fitness to proceed with the exercises required for the degree; or (b) have obtained a degree in some other approved university such as will qualify him to enter on a course of advanced scientific study and research.

The candidate, qualified as above, must pursue, under the supervision of the professors concerned, a whole-time course of research and advanced study in some branch of science selected by him, for a period of two academic years. Provided always that in lieu thereof an equivalent amount of work, spread over a longer period, may be accepted, and that in substitution for one of the two years the candidate may offer evidence of an equivalent amount of research work done previously in an approved institution, or may elect, at the conclusion of his first year, and with the approval of the professors concerned, to pass his second year at some other place of scientific learning.

At the conclusion of his course the candidate must embody his results in a thesis, which must be approved by the professor or professors concerned as sufficiently showing the candidate's qualification for the degree, and which must be communicated by him to a meeting held within the College, open to all members of the University, and convened by the Provost. He may also be required to present himself for examination in branches of

science cognate to the subject of his researches.

DEGREES. 9

A Doctor in Science must be a Master in Science, or a Bachelor in Arts of at least three years' standing. The primary test for the Doctorate shall be original published work in Science submitted by the candidate. It must contain such results as mark an advance in scientific knowledge; and in the case of experimental work must show the candidate's power of following up experimental evidence in the elucidation of phenomena, and his originality in planning experiments and ability in deducing conclusions therefrom.

If during the period spent in working for the Master's Degree the candidate has published such work as would qualify him for the Doctor's Degree, it is possible for him to take the two

Degrees at the same Commencements.

Any graduate applying to the Registrar to have the Private Grace of the Provost and Senior Fellows for the Degree of Doctor in Science or Doctor in Literature must as a preliminary step lodge with the Bursar the sum of ten pounds, to be paid to the Examiners who are to inquire into the scientific or literary claims of the applicant: in the event of the Degree being granted, this sum will be allowed in part payment to the Senior Proctor of the fee of twenty-five pounds for the Degree. The candidate must also supply full information as to the authorities and materials which he has used, and must declare, in writing, that the work is his own and has not been submitted as an exercise for a Degree at any other University.

The Examiners appointed to report on the merit of the work submitted shall have power to question the author upon his work,

either viva voce or in writing.

The work must be printed and placed in the hands of the Registrar, that it may be submitted to the Examiners at least two months before the date of the Commencements at which the candidate desires to obtain the Degree.

Master in Letters.—A candidate for the Degree of Master in Letters (Litt.M.) must either (a) be a graduate of the University who has gained a Moderatorship in Languages, Legal and Political Science, History, or Mental and Moral Philosophy, or has done such Honor work during his Undergraduate course as shows his fitness to proceed with the exercises required for the degree; or (b) have obtained such a degree at some other approved university as will qualify him to enter on a course of advanced study or research.

The candidate, thus qualified, must pursue, under the supervision of the professors concerned, a course of study in some branch of letters or philosophy selected by him, for the period of two academic years; provided that, in lieu thereof, an equivalent amount of work, spread over a longer period, may be accepted, and that instead of one of these years the candidate may offer evidence of an equivalent amount of literary or research

work, properly attested, or may elect, at the conclusion of his first year, and with the approval of the professors concerned, to pass his second year at some other seat of learning, at home or abroad.

At the conclusion of his course the candidate must embody his results in a thesis, which must be approved by the professors concerned as justifying the candidate's claim for the degree, and which must be read before a meeting within the College, convened by the Provost, and open to all members of the University. He may also be required to present himself for examination in matters relating to the special field of his researches.

A Doctor in Literature must be a Master in Letters, or a Bachelor in Arts of at least three years' standing. The primary test for the Doctorate shall be published work submitted by the Candidate, and forming an original contribution to the study of (a) Literature, Ancient or Modern; or (b) Philosophy; or (c) Æsthetics; or (d) History; or (e) Archæology. (Works dealing with other departments of study, such as Theology or Law, which possess a special doctorate, may not be submitted for the Litt.D.) The Candidate's work must show evidence of independent inquiry, and must either contain some real addition to knowledge, or present a fresh interpretation of materials already known. It must be of substantial importance, and should, as a rule, be concerned with a single subject. If separate papers or essays are submitted, they should exhibit some unity of aim.

If, during the period spent in working for the Master's Degree the candidate has published such work as would qualify him for the Doctor's Degree, it is possible for him to take the two Degrees

at the same Commencements.

For further conditions see under Doctor in Science.

Degrees in Divinity.—All exercises and examinations necessary to the attainment of Degrees in Divinity are under the control of a Court consisting of the Regius Professor of Divinity or his Deputy, Archbishop King's Professor of Divinity, the Professor of Biblical Greek, and the Professor of Ecclesiastical History.

All correspondence relative to Degrees in Divinity must be

addressed to the Regius Professor, or to his Deputy.

A Buchelor of Divinity must be a Bachelor of Arts of three years' standing. He must likewise have undergone a special

Examination in Divinity.

Candidates for this Degree will be required to show a general knowledge of the Scriptures of the Old and New Testament, of Ecclesiastical History, and of Dogmatic Theology, and also to have made a special study of some particular branches.

Examinations.—As a general rule, it is required that Candidates shall be examined in the Course annually appointed for Exami-

nation for Theological Exhibitions (see under Divinity School, "Theological Exhibitions"). It consists of six Divisions, viz.:—

I. Old Testament, II. Hebrew,

III. New Testament, IV. Dogmatic Theology,

V. Ecclesiastical History, and

VI. Patristic Theology.

Candidates for the B.D. Degree are permitted to bring up any one or more of these Divisions, in any order, at any one of the three Examinations which are annually held in March, June, and December, and to reserve the rest for any subsequent Examination or Examinations. They are required to give notice to the Regius Professor a month before the Examination at which they propose to present themselves, stating at the same time in what divisions of the Course they desire to be examined. Each Candidate, when he gives such notice, must send to the Senior Proctor an examination fee of one guinea for each Division specified in his notice. The fees so paid by the Candidate will, in case he obtains the Degree, be allowed (to an amount not exceeding six guineas) in part payment of the Degree fee of £13 15s.

The Court, on sufficient reason being shown, may make different arrangements for a Candidate's Examination. Application for such special arrangements must be made three months before the Commencements at which the Candidate

desires to obtain his Degree.

Candidates who do not hold the Divinity Testimonium will further be examined in the following:—

### Division VII.

(1) Butler, The Analogy.

(2) The Article Miracle in Hastings' Dictionary of the Bible.

(3) Paley, Horæ Paulinæ.

(4) A. B. Davidson, Old Testament Prophecy. Edited by J. A. Paterson, omitting chaps. 8, 9, 10, 12, 15, 18, 23, 24.

(5) Swete, The Apostles' Creed.

(6) The Thirty-nine Articles of Religion, with Harold Browne's Exposition.

Candidates, on giving not less than one month's notice, may substitute for (6) The Westminster Confession of Faith, The Form of Presbyterial Church Government, and The Directory for Public Worship.

Thesis.—As a proof that the Candidate has, in addition to the general course of reading, made a special study of some particular branch, he must send to the Regius Professor, two months before the day of Commencements, a Thesis, printed or type-written, on a subject chosen by himself and approved of by the Court. The Thesis should be accompanied with references to the authors consulted in its composition.

A Doctor in Divinity must be a Bachelor of Arts of eight years' standing, and must also be a Bachelor in Divinity. He is required to present a printed Thesis, in which he has treated of and explained some portion of Doctrine from the Holy Scriptures, or of the History of the Church, or of Dogmatic Theology. It is desirable that the Candidate, before printing his Thesis, should have the subject approved of by the Court. This Thesis he must send to the Regius Professor two months before the day of Commencements, and at the same time he must lodge with the Bursar a sum of £5, to be paid to an Examiner appointed by the Court, who, together with the Regius Professor, shall report to the Court on the merits of the Thesis. In the event of the Degree being granted, such sum will be allowed in part payment to the Senior Proctor of the fee of £26 for the Degree.

The University of Dublin Tests Act (36 Vict. chap. 21) abolishes the necessity formerly imposed on Candidates for the Degree of Bachelor or of Doctor of Divinity of subscribing the declaration of the Royal Supremacy, the Liturgy of the United Church of

England and Ireland, and the Thirty-nine Articles.

A Bachelor in Laws must have taken the Degree of Bachelor in Arts. He must also have passed a Special Examination. For details, see Law School.

A Doctor in Laws must be a B.A. of three years' standing, and

must have taken the degree of LL.B.

For the procedure by which Candidates may qualify them-

selves to obtain this Degree, see School of Law.

A Bachelor in Medicine must have taken the Degree of Bachelor in Arts, and must have spent five years in the study of Medicine. Before the Grace of the House can be obtained, the Candidate must pass a public Examination in the Hall before the Medical Professors

For regulations see School of Physic.

A Doctor in Medicine must have taken the M.B. Degree, and must be of M.A. standing. He must also read a Thesis publicly before the Regius Professor of Physic or must undergo an Examination before the Regius Professor, according to regulations to be approved by the Board.

A Bachelor in Surgery must be a Bachelor in Arts, and have spent five years in the study of Surgery and Anatomy. Before the Grace of the House can be obtained, the Candidate must pass a public Examination in the Hall before the Professors of the School.

A Master in Surgery must be a B.Ch. of three years' standing, and must produce satisfactory evidence of having been engaged for not less than two years from the date of his registration in the study or practice of his profession. He must then pass an Examination in Surgery and Surgical Anatomy. Graduates in Surgery of the University of Dublin, of not less than ten years' standing, may be recommended for the Degree of M.Ch. by the vote of the Court of Examiners on such Examination as they shall determine.

A Bachelor in Obstetric Science must have graduated in Medicine, have attended a Winter's Course of Lectures in Midwifery at a recognized School, have practised Midwifery for six months at a recognized Hospital or Maternity, and must pass an Examination in Practical Midwifery, Gynæcology, and Obstetrical Anatomy.

A Master in Obstetric Science must be a B.A.O. of two years' standing, and must produce satisfactory evidence of having been engaged for two years in the study of Obstetric Science. Before the Grace of the House can be obtained, the Candidate must pass the M.A.O. Examination according to regulations approved by

the Board.

A Bachelor in Dental Science must be a Bachelor in Arts, must have spent at least four years in the School of Dentistry,

and passed the requisite Examinations.

Masters in Dental Science must be Bachelors in Dental Science of at least one year's standing. They will be required to pass an Examination in Pathology and Bacteriology, and either to carry out Dental work of an advanced character to the satisfaction of the Examiners, or to present a thesis to be approved of by them, giving evidence of original research on some subject connected with Dentistry.

A Bachelor in Civil Engineering must have taken the Degree of Bachelor in Arts. He must also have spent two years at least in the study of Civil Engineering, and have passed all the

Examinations of the School. (See Engineering School.)

A Master in Civil Engineering must have taken the Degree of Bachelor in Civil Engineering; he must also have practised for three years as a Civil Engineer, after having obtained the Degree of B.A.I.

A Bachelor in Agriculture, or in Agriculture (Forestry), must have taken the Degree of Bachelor in Arts, and must have fulfilled the necessary conditions. For details, see "Schools of Agriculture and of Forestry."

Degrees in Music. - Candidates for Degrees in Music must matriculate in Arts, but are not required, as in the other

Faculties, to proceed with the Arts Course.

All Candidates for Examinations in Music are required to give one month's notice of their intention to present themselves.

Bachelor in Music.—The Examination for this Degree is divided into two parts:-

1. Preliminary Examination to include—

(a) Harmony up to four parts from a figured bass.

(b) The addition of three parts to a given melody, placed in any

(c) Strict Counterpoint up to four parts.

(d) A general knowledge of Beethoven's pianoforte sonatas.(e) The main outlines of musical history.

(f) Vivà voce Examination in general knowledge of music.

Before entering for the Final Examination the Candidate must either submit an exercise, or undergo a practical test at the organ or pianoforte.

- A. The exercise may be either-
  - a vocal cantata containing a solo, an unaccompanied quartet, a five-part chorus, and a four-part fugue, with accompaniment for strings only;
  - (2) a string quartet containing the usual four movements.

The exercises must be sent to the Registrar of the School of Music not later than two months before the date of the Examination. They need not be publicly performed unless the candidate desire it, and then at his own expense.

Bachelors and Doctors in Music of the University of Oxford or of Cambridge can proceed ad eundem gradum in the University of

Dublin on payment of the necessary fees.

B. Should the candidate choose the practical test in lieu of the exercise, he must be prepared to play the following pieces [for 1920 and 1921]:—

Pianoforte: J. S. Bach.—Prelude and fugue in C sharp major (Book i, No. 3).

Debussy .- Arabesque in G major.

Or,

Organ: Schumann.—Fugue on B. A. C. H., No. 5. Harwood.—Requiem Aeternam.

Candidates (whether they choose organ or pianoforte) will be

required to transpose and also to play at sight.

The practical test will take place in Dublin immediately before the Final Examination; and successful candidates may sit for that examination at once.

## 2. Final Examination :-

(a) Harmony up to five parts.

(b) Counterpoint up to five parts, strict and free.

(c) Double counterpoint.(d) Canon in two parts.(e) Fugal construction.

(f) A knowledge of Bach's "Wohltemperirtes Clavier."

(g) Critical and historical questions.

(h) I'va voce principally to test the candidate's acquaintance with admitted masterpieces.

Doctor in Music.—A Doctor in Music must be a Mus. B. of the University of Dublin. Before sitting for the examination the Candidate must cither submit an Exercise, or undergo a practical test at the organ or pianoforts.

## A. The exercise may be either—

(1) A work for voices and orchestra, comprising-

(a) An overture or introduction,

(b) At least one choral movement in eight real parts,

(c) At least one solo with orchestra,

(d) Specimens of canonic and fugal writing;

(2) A symphony for full orchestra in the usual four movements.

Exercises must be sent to the Registrar of the School of Music not later than two months before the date of the Examination.

B. Should the Candidate choose the practical test in lieu of the exercise, he must be prepared to play the following pieces [for 1920 and 19217:-

Pianoforte: Beethoven .- Sonata Appassionata. Cyril Scott .- Chimes.

Organ: J. S. Bach.—Prelude and fugue in B minor (Peters, vol. 2). Harwood .- Paean.

Candidates (whether they choose organ or pianoforte) will be required to extemporize and to read a fairly easy orchestral score.

The practical test will take place in Dublin immediately before the Final Examination, and successful Candidates may sit for that Examination at once.

The Examination will include:-

(a) Harmony and free counterpoint up to eight parts.

(b) Double and triple counterpoint.

(c) Canon up to four parts. (d) The writing of a fugue in not more than four parts.

(e) The instrumentation of a given passage.

 (f) Critical and historical questions.
 (g) Vivâ voce, principally to test the Candidate's knowledge of the works of the Great Masters.

All the several Musical Examinations are held concurrently, twice a year, on days announced in the Calendar.

Fees Fee for Matriculation,		4	£15
Bachelor of Music,a			10
Doctor of Music.	-		20

Regulations as to the payment of the Fees of £10 and £20 for Degrees in Music (adopted by the Board, Jan. 15, 1898; March 18, 1916):-

A Candidate for Mus. B. pays £2 before presenting himself for Examination; £3 before sending in his Exercise, or before his Practical Test; and £5 before presenting himself at the Commencements.

A Candidate for Mus D. pays £5 before sending in his Exercise, or before his Practical Test; and £15 before presenting himself at the Commencements.

These fees are to be sent to the Senior Proctor.

A Candidate failing at an Examination will be admitted to the next following Examination only of the same grade without payment. If he then fail, the Examination must be commenced de novo.

Admission of Candidates to Degrees "in absented."—A Student of the University may be allowed (although not present in the Senate) to proceed to his Degree upon the following conditions (Decree of the Board and Senate, 14 February, 1917):—

- 1. The academic qualification required for Degrees to be conferred in absentia are the same as those required for Degrees conferred in person.
- 2. The requirements as to fitness of character are also the same as those required for Degrees conferred in person, viz.: that before passing any Grace for a Degree in absentia the Board shall require such evidence as it may deem necessary to secure that no unworthy Candidate is presented to the Senate.
- 3. Subject to the foregoing, the Board may pass a Grace for a Degree in absentia (a) for any Candidate resident without the British Isles, or (b) for any Candidate resident within the British Isles if the circumstances which prevent his appearing in person are in their opinion of a sufficiently grave or exceptional nature.

Admission "ad eundem Gradum."—A candidate who holds an Oxford or Cambridge Degree may be admitted to the corresponding Degree in Dublin on sufficient reason being shown, and provided that he has obtained the B.A. Degree in a course equivalent to that for the Dublin Degree. Evidence as to character is also required.

The fee for the B.A. Degree ad eundem is £11 3s., as the Candidate must place his name on the College books. In all other cases the fee is the same as that payable by Dublin Graduates.

Candidates who have paid to the Senior Proctor the fee for a Degree ad eundem may present themselves for the examination for a higher Degree on payment of the regular examination fee, and before the ad eundem Degree has been conferred, and if the Candidate be successful, the higher and lower Degrees may be conferred at the same Commencements.

For the purpose of ascertaining the date at which a higher Degree may be taken, the Candidate is reckoned as having taken the lower Degree ad eundem on the date at which he obtained

the corresponding Degree in his own University.

Application for the Degree of B.A. ad eundem must be made through the Senior Lecturer, in all other cases through the Senior Proctor. (Resolution of the Board, 23 June, 1917.)

## TABULA EXPENSARUM PRO UNOQUOQUE GRADU ACADEMICO.

Baccalaureus in Artibus (B.A.),			
Baccalaureus in Artibus (B.A.), Nobilis,	35	0	0
Soc. Comm.,	3	0	0
Soc. Comm., Pens.,	2	0	0
Magister in Artibus (M.A.),	9	16	6
Magister in Artibus (M.A.),	10	0	0
Magister in Scientiis (Sc. M.),	1	0	0
Doctor in Scientiis (Sc.D.),	25	0	0
Magister in Litteris (Litt.M.),	11	0	0
Doctor in Litteris (Litt.D.),	25	0	0
Baccalaureus in Sanctâ Theologiâ (B.D.),	.3	15	0
Doctor in Sanctâ Theologiâ (D.D.),	26	0	0
Biccalaureus in Utroque Jure (L.L.B.),	11	15	0
Doctor in Utroque Jure (LL.D.),	22	0	0
Baccalaureus in Medicinâ (M.B.)	11	0	0
Doctor in Medicina (M.D.),	13	0	0
Baccalaureus in Chirurgia (B.Ch.),	5	0	0
Magister in Chirurgia (M.Ch.),	11	0	0
Baccalaureus in Arte Obstetriciâ (B.A.O.)	1	0	0
Magister in Arte Obstetriciâ (M.A.O.),	0	0	0
Baccalaureus in Dentaria Scientia (B.Dent.Sc.), 1	10	0	0
Magister in Dentariâ Scientiâ (M. Dent. Sc),	10	0	0
Baccalaureus in Arte Ingeniariâ (B.A.I.),	1	0	0
Magister in Arte Ingeniariâ (M.A.I.),			0
Baccalaureus in Agri Cultura (Agr.B),			0
Baccalaureus in Agri (Forestarii) Cultura [Agr. (Forest.) B.],			0
Baccalaureus in Musica (Mus.B.), for Non-graduates, 1			0
for Graduates,			0
	20		0

The Senior Proctor receives the Fees for all the above Degrees, with the exception of those for the Degree of Bachelor of Arts, which are payable to the Junior Bursar.

Testimoniums.—A fee of thirty shillings must be paid on taking out the Testimoniums of the following Degrees:—Sc.D., Litt.D., M.A.O.; a fee of ten shillings on taking out the Testimoniums of M.A., B.D., D.D, LL.B, LL.D., M.A.I., Mus. B., Mus. D.; the fees for taking out the Testimoniums, of the other Degrees, namely:—B.A., Sc.B., Sc.M., Litt M., M.B., M.D., B.Ch., M.Ch., B.A.O., B. Dent. Sc., M. Dent. Sc., B.A.I.; Agr. B., and Agr. (Forest.) B., are included in the fees charged for the Degrees in the preceding Schedule.

N.B.—As some inconvenience may be occasioned to Graduates by unavoidable delay in the issue of Testimoniums, all Students requiring the Testimoniums of their Degrees during the Summer Vacation are requested to make application for them before the 30th of June. As a general rule, Testimoniums of Degrees will not be issued during the Vacation.

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Diplomas and Licenses.—The conditions on which Diplomas are granted in Gynaecology and Obstetrics, Agriculture, Education, Economics and Commercial Knowledge, and Religious Knowledge for Women, and Licenses are granted in Medicine, Surgery, Obstetric Science, and Civil Engineering, will be found under the corresponding headings.

# Representation of the University in Parliament.

UNDER the Representation of the People Act, 1918, the University of Dublin returns two members to Parliament, under a system of

Proportional Representation.

Every person of full age (i.e., 21 in the case of a man and 30 in that of a woman) is entitled to be registered as a Parliamentary elector for the constituency of the University of Dublin, provided that he is a British subject and is not subject to any legal incapacity\* and has received a Degree (other than an Honorary Degree) at the University, or has obtained a Scholarship or Fellowship in the University, whether before or after the passing of the Act.

The University is entitled to charge a fee not exceeding £1 in respect of registration as an elector who claims as a Graduate. Forms of application may be obtained on application to the

Assistant to the Registrar of University Electors.

<sup>\*</sup> This restriction applies only to conscientious objectors and to those convicted of offences under the Defence of the Realm Act.

# Trinity College.

### ORDER OF RANK IN THE COLLEGE.

THE several orders in the College are the following:-

1. The Provost or Head of the College; who must be not less

than thirty years of age.

2. Fellows; who were formerly bound to enter into Priest's Orders, except five: of whom one was elected *Medicus*, by the Provost and Senior Fellows, and two others were elected *Jurista juris Civilis* and *Jurista juris Anglici*, respectively. This obligation to take Holy Orders was removed by the Act 36 Victoria, chap. 21.

3. NOBLEMEN, SONS OF NOBLEMEN, and BARONETS, who are matriculated as such under the title of Nobilis, Filius Nobilis, and

Eques.

4. Doctors in the several Faculties, Bachelors in Divinity, and Massers in Arts, Surgery, Obstetric Science, Civil Engineering, Dental Science, Letters, and Science. Doctors and Masters have no Collegiate privileges or duties, unless their

names are kept on the College Books.

5. BACHELORS IN CIVIL LAW, MEDICINE, SURGERY, OBSTETRIC SCIENCE, CIVIL ENGINEERING, DENTAL SCIENCE, SCIENCE AGRICULTURE, and BACHELORS IN ARTS. They are not required to keep their names on the University or on the College Books in order to entitle them to proceed to the higher Degrees. All Graduates are entitled to be registered as Parliamentary electors for the constituency of the University of Dublin. Graduates other than Doctors and Masters should apply to the Assistant Registrar.

6. Fellow-Commoners, who have the privilege of dining at the

Fellows' Table.

7. Scholars who are on the foundation, being members of the

Corporation of the College (see under Scholarship).

The number of Scholars is seventy, of whom thirty were formerly termed natives (*Hibernici*), but this distinction has been abolished by King's Letter, 8 Geo. IV.

8. Pensioners, namely ordinary Students in Arts.

9. SIZARS, who are Students of limited means, having their commons free of expense, and being exempted from annual fees. They were formerly nominated, one by each Fellow, and eight or more (provided the number of thirty were not exceeded) by the Provost. They are now admitted annually by an examination (see "Sizarships"), and the number is not limited to thirty.

#### COLLEGE CHARGES.

I. Undergraduate Fees.—Before the name of any Student can be placed upon the College Books, the amount of Entrance Fees specified below must be paid to the Junior Bursar. The payment must be made within one week of the declaration of the result of the Entrance Examination. Fees not paid within the specified time are subject to the Tardy Payment charge of 3s. per week, and if not paid within six weeks of the declaration, the Entrance Docket is cancelled. In the case, however, of those who intend to present themselves at a Term Examination on the day following the days of Entrance, the payment must be made on the last day of the Entrance Examination.

The following statements contain the practice with regard to

Arts Fees:

(a). For Pensioners, the Entrance and half-yearly Fees are fifteen pounds and eight guineas respectively; for Fellow-Commoners, thirty pounds and sixteen guineas respectively, and for Filii Nobilium, sixty pounds and thirty-two guineas respectively. Sizars pay £1 1s. 3d. Entrance Fee, and are exempt from half-yearly Fees.

(b). Students who enter after the March quarter in any year and present themselves at the Trinity Term Examination in May, or the Trinity Lectures, or the Supplemental Hilary Term Examination in June, or the Michaelmas Term Examination in October, must pay the first half-yearly fee before presenting themselves for any Term Examination or Lectures; and they must pay a second half-yearly Fee at the end of October

Students who enter after the March quarter, and do not present themselves for any of the above Examinations or Lectures, pay the first half-yearly Fee in the April of the succeeding year.

The names of Students who enter between the end of March Quarter and the 1st of November are not placed upon the College Books unless the payment to the Junior Bursar entitles them to be put in the existing Junior Freshman Class.

(c). A Student who goes through his Course in the regular way (i.e. without dropping a Class) will pay to the Junior Bursar, in addition to the Entrance Fee, eight half-yearly Fees, payable in April and October in each year; and no Student can rise to the standing of a Candidate Bachelor until he has made the last of these half-yearly payments. Students should remember that the fee of two pounds for the conferring of the Degree must be paid to the Junior Bursar on or before the day preceding the Commencements at which they present themselves.

No Student will be allowed to be a Candidate for Moderatorship or at the Special B. A. Degree Examination in Trinity Term unless his Fees for the current half-year shall have been paid

before the first day of Examination.

The half-yearly Fees become due at the end of the March and September quarters, but Students are allowed to delay the payment till the Friday before the first Saturday in May or November respectively. Fees despatched by post are counted as received on the day on which they are posted. A Student sending Fees by post should state his Class and Tutor, in addition to his own name.

Half-yearly Fees should be paid on or before the Friday which precedes the first Saturday of May or November, and any Student whose Fees are not paid on that day must pay with them the Tardy Payment charge of 3s. for that and every succeeding Friday in May or November for which the Fees remain unpaid, until the first Saturdays of June and December, on which days the names of all Students whose Fees have not been paid are struck off the books, and can only be replaced on payment of a Fee of 15s., in addition to the half-yearly Fee.

In addition to the half-yearly Fees, some Students incur Incidental Expenses, due as Rent of Chambers, Commons, Punishments, and so forth, and these must be paid to the Junior Bursar,

together with the half-yearly Fees.

Sizars, whose incidental expenses are not paid before the first Saturday in June and the first Saturday in December, respectively, are forthwith struck off the Books, and their Sizarships vacated.

- (d). Students who drop a year, whether from inability to keep the requisite Terms, or from any other cause, should always consult their Tutors before paying the half-yearly Fees then due, or next to become due; and when so doing, they should state whether they belong to, attend, or purpose to join, any of the Professional Schools.
- (e). A Student whose name has gone off the books can always replace in any Class in which the Terms he has kept entitle him to be placed, provided he pays the replacement Fee of 15s., and that the half-yearly payment or payments which he makes on replacement, taken with those which he has previously made, include all those paid in regular course by the Students in the Class which he joins on replacing, viz. one half-yearly Fee in the April and one in the October of each Freshman and Sophister year for which he claims credit. But it is especially to be observed that if, in the April or October of any year, a Student who is not allowed by the Senior Lecturer to keep his Class, should nevertheless pay the half-yearly Fee then due, such payment does not count as a payment for the April or October of the Class from which he is put down, but as a repetition of the payment previously made by him as a member of the Class to which he is put down, and such payments are not taken account of in determining the amount to be paid on replacement.

In determining the time for which the name of a Student who

replaces remains on the Books without further payment, the halfyearly Fee paid on replacement is considered as having been paid at the date on which it became due by the members of the Class which the Student joins. Thus a payment made after March 21st will keep the Student's name on the Books till the first Saturday in December, unless it counts as a payment made in the previous half year, in which case the name goes off on the first Saturday in June.

Graduate members of the Army Class are allowed to continue their attendance on the Army Lectures in the month of June, without payment of the current half-year's fees. (Order of the Board, May 20, 1905.)

Replacement.—A Replacement Fee of fifteen shillings must always be paid to the Junior Bursar for the replacement of the name of any Student which has been removed from the Books.

In addition, the full amount of the College Fees must be paid, see (e) above, except in the following cases:—

1. Replacement for the purpose of getting Degrees conferred.

2. Graduates of the University are allowed to go in for the Final Examination of the Divinity School, and Students who have passed the B.A. Examination are allowed to go in for the Final Examination of the Engineering School, on payment of a Liceat ad Examinandum Fee of one guinea. The names of Students so replaced are removed from the Books immediately after the Examination. (Orders of the Board May 2, and June 23, 1885.)

3. Graduates of the University are permitted to replace their names on the Books, during the first year from taking the Degree of B.A., without payment of the College Fees, for the purpose of competing for any Prizes which are open to Students in their Bachelor years. The names of any Students so replaced are removed from the Books immediately

after the Examination. (Order of the Board, June 19, 1897.)

During the second and third year to M.A. standing, they must pay a

full half-year's fees. (Order of the Board, Nov. 5, 1904.)

In the case of all Prize Examinations at which, under existing Rules, Students presenting themselves for Examination are required to have their names on the College Books, the list of Prizes awarded shall be certified by the Junior Bursar before being laid before the Board for confirmation.

4. See Divinity School, § vI., for rules with regard to Theological

Exhibitions.

When a Student's name is put on the College Books in virtue of Terms kept in another University, the fee of fifteen shillings is charged, but as a Registration Fee, not as a Replacement Fee.

II. Charges for Doctors in the several Faculties, Masters, and Members of the Senate.—Resident Doctors and Masters pay the sum of £4 half-yearly. The regulations for payment are the same as those already given under the head of Undergraduates.

The Fees payable by Members of the Senate are regulated by the following Decrees of the Board (Jan. 22, 1859; Jan. 31, 1872; June 12, 1875; Jan. 12, 1884; June 28, 1890; Feb. 24, 1903):—

Whereas, by the Royal Letters Patent bearing date the 24th day of July, in the twenty-first year of the reign of Her most Gracious Majesty Queen Victoria, it is amongst other things enacted, that the Senate of the University of Dublin shall, as heretofore, consist of the Chancellor, or, in his absence, the Vice-Chancellor, or Pro-Vice-Chancellor for the time being, and of such Doctors and Masters of Arts of the University as shall have and keep their names on the Books of Trinity College, in accordance with such regulations and conditions as the Provost and Senior Fellows of the said College shall enact:

We, therefore, the Provost and Senior Fellows, in pursuance of the

powers vested in us, do hereby enact and Decree:

1. That no change shall be made in the Fees heretofore payable by Doctors and Masters holding Rooms in the College, or in attendance on Collegiate or Professional Lectures, or presenting themselves at Examinations.

2. That all Doctors or Masters of Arts, whose names are now on the College Books (i. s. on January 31, 1872), and who are not resident nor in attendance on Lectures, as aforesaid, shall be permitted to retain their names on the Books of the College as Members of the Senate, without

further payment.

3. That all Doctors or Masters of Arts (except as hereafter provided), whose names are not on the College Books, shall be required to pay, on replacing their names, the accustomed charge of £4 15s. for the half-year in which such replacement is made; after which their names shall be retained on the College Books as Members of the Senate, without further payment.

4. That the names of all Doctors and Masters of Arts, who have been University Students, or First Senior Moderators who have obtained a large Gold Medal, or Senior Moderators who have obtained two Gold Medals shall be replaced and retained on the College Books as Members

of the Senate, without charge.

5. That Ex-Fellows of the College, according to ancient privilege, shall be permitted to retain their names on the College Books without any charge.

6. That the Members for the University in Parliament, and ex-Members, shall be permitted to retain their names on the College Books free of all charge.

Fees for Lectures or Laboratory Instruction.—Where a fee is chargeable for attendance on a course of Arts Lectures or of Laboratory Instruction, it must be paid to the Junior Bursar not later than three days after the day fixed for the commencement of Arts Lectures or of attendance at the Laboratory, and the receipt must be produced to the Professor or Lecturer. If not paid within that time, a tardy payment fine of 3s. will be imposed. No Student is permitted to attend such a course if his fee has not been paid within six days from the commencement of Lectures or of his attendance at the Laboratory. Professors and Lecturers are directed to enforce this rule.

# RESIDENCE, AND DUTIES OF RESIDENT STUDENTS.

RESIDENCE, as a part of Academic discipline, is not enforced in the University of Dublin, but residence either in the city or in the

College is indirectly necessary.

Rooms.—Chambers in the College are granted by the Provost on application from the Tutor of the Student who proposes to reside. On obtaining Rooms, a sum of money is deposited with the Registrar of Chambers, which is intended as security against any injury that they may sustain, and is returned on vacating the Rooms, if all claims of the College be first satisfied. The deposit for Rooms varies from £8 to £30; and the annual rent varies from £4 to £18. Most of these Chambers are intended to accommodate two Students, in which case each Student in occupation pays only half rent and half deposit. If, however, a Student, from any cause, should be the sole occupant of such Rooms, he is always liable for the entire rent

during whatever time the sole occupation continues.

A list of the Chambers vacant within the College is hung up at the Chief Steward's lodge, near the Gate. Students can see the different sets of vacant Chambers on application to the Clerk of the Works, and when they have decided which sets they prefer, they should communicate with their Tutors, giving a list containing the particulars of two or three sets of Chambers, in the order in which they prefer them, so that in case the Rooms first applied for are granted to other Students, the Tutors can apply for the other Rooms. An application for a double set of Chambers must be made on behalf of two Students jointly. If the Rooms applied for be granted, the deposit must be paid to the Registrar of Chambers within a fortnight, or else the right to the Rooms lapses. The deposit is returned when the Rooms are vacated and the keys given up to the Chief Steward.

No Student is allowed to reside in Chambers registered in the name of another, without a written permission from the Provost, stating the period during which such temporary occupation may continue. The Chambers of any Student who allows another person to occupy them, either wholly or in part, without such

permission, are immediately declared vacant.

The following Regulations concerning the occupation of Chambers have been made by the Board (June, 1877; March 16, 1878; January 20, 1883; June 23, 1885; July 1, 1886; and May 21, 1904):—

1. The Chambers of Resident Students, except Scholars, and Students attending Lectures in one of the Professional Schools, are to be vacated at the close of the Quarter in which they shall be of standing to be

admitted to the B.A. Degree.

2. Students attending Lectures in the Professional Schools shall be permitted to retain their Chambers till the expiration of the Trinity Term of the Junior Bachelor year, but not longer, without special permission from the Board,

The Chambers of Ex-Scholars and Ex-Sizars shall be vacated at the close of the September Quarter next after the expiration of their

Scholarships and Sizarships.

4. No Student who shall have passed the standing of Candidate Bachelor shall be admissible as a Candidate for Rooms, or for a re-grant of Rooms vacated under the provisions of the aforesaid Regulations, unless he has previously obtained the consent of the Board.

5. Graduate Students above the standing of Junior Bachelor, who may obtain permission to occupy Rooms, shall pay a higher rent than

that paid by ordinary Undergraduate Students.

6. After each Term a return shall be made to the Board of the Students holding Chambers in College who have not attended Lectures, and the Chambers of those Studen's who have failed to attend during two Terms in the year shall be forfeited unless their Tutors shall satisfy the Board that there have been reasonable grounds for such failure.

7. The Rooms of all Students whose accounts are not paid on the first Saturdays in June and December, respectively, shall be declared vacant

on those days by the Registrar of Chambers.

8. The Registrar of Chambers is empowered to charge Students, who may change their rooms, and neglect to give the keys of their vacated Rooms to the Clerk of the Works, the rents of both Rooms until the deposit be transferred.

9. The Registrar of Chambers is authorized (in case Students fail to give up their Rooms in time) to charge the occupier rent as if his name were on the Books, provided that the sum charged do not exceed the

deposit.

10. The Provost is permitted, if he think fit, to grant Rooms to Students who have entered College at the Midsummer Entrance or at the October Entrance, and who have paid the Entrance Fee of £15, even though their names be not on the College Books in the existing Junior Freshman Class.

11. Graduates may, in certain cases, be allowed to dine on Commons, and occupy Rooms, on payment of a half-yearly Fee of £4 4s. Applications for this privilege are to be decided by the Provost, and subject

to revision each half year.

Attendance on Divine Service.—All Students who are members of the Church of Ireland or England, and who reside within a distance of one mile and one-half from the College, are required to attend Divine Service in the College Chapel on Sunday morning. The Junior Dean is directed to bring the names of such Students as are negligent in their attendance under the notice of the Provost or Senior Dean. Students resident within the College, who neglect to comply with the regulation on this point, are liable to be deprived of their Rooms.

The hours of Divine Service in the College Chapel are the following:—On Sundays, Morning Prayer is read at 10 a.m., and Evening Prayer at 7 o'clock. On week-days, Morning Prayer is read at 8.30 a.m., and Evening Prayer at 7.45 o'clock. The Order for Morning and Evening Prayer is shortened in the Chapel on week-days, by the omission of certain prescribed portions. On Sundays all Students must wear surplices, with

the hoods belonging to their Degrees, if they be Graduates.

The Holy Communion is administered on days fixed by the Provost.

After Morning Prayer on Sundays, a Sermon is delivered by one of the Professors of Divinity or one of the University Preachers

for the year.

Students in residence who are members of the Presbyterian Church in Ireland, are required to lodge with the Junior Dean a certificate of attendance upon one of the Presbyterian Churches of the city signed by the Minister of that Church. (Resolutions of Board and Council, May 15 and 19, 1886.)

Corrections.—At half-past ten o'clock on Saturday mornings, the Junior Dean attends in the Hall, and reads out the names of all Students who have been punished for neglect of duties or other offences during the week. It is the interest of those who can excuse themselves to be present; and if their excuses are admitted by the Dean, the fines are taken off.

Commons of Resident Students.—All Students resident in College, unless specially excused by the Provost, must dine in the Commons Hall, except during the summer vacation. They must take care to put their name on Commons by application to the Clerk of the Buttery, as soon as they come into residence.

The Rules now in force with regard to Commons are as follows (Orders of the Board, April 28, 1877; July 8, 1878; March 20, 1886; March 26, 1887; July 5, 1890, and Nov. 22, 1890):—

1. That all Fellow-Commoners and Pensioners under the standing of M.A., and holding Chambers in the College, be uniformly charged, in addition to the Chamber-rent now paid to the Registrar of Chambers, a certain specific sum per week for certain portions of the year; and that the sums thus accruing be considered as contributions to a Commons Fund.

2. That these charges be, for each Fellow-Commoner, seven shillings and six pence per week, and for each Pensioner five shillings; said charges to be levied for the weeks in each Term in which Undergraduate Lectures shall be given, or for so many of those weeks in any Term as the Student holds Chambers without actually giving up the keys of the

same to the person entitled to receive them.

3. That these charges be made by the Clerk of the Buttery Books, from the Quarterly Chamber-rent list furnished by the Registrar of Chambers, against all persons liable to the same; and be introduced in the half-yearly accounts payable to the Junior Bursar, among the incidentals of the past half-year under the name of Commons Fund. All persons, however, to whom Chambers may be granted within any of the periods above specified, are not to be considered liable to these charges until the ensuing Term.

4. That the weekly sums thus charged be allowed in the regular Commons Charge to each Student, and the remainder, or variable part of the

Commons Charge, be payable to the Clerk of the Buttery Books.

5. Students residing habitually at a distance from Dublin, and coming to Dublin to attend the Examinations of their Class, are allowed to put their names on Commons on the days on which these Examinations are held.

6. The Junior Dean shall be required to impose a fine of 5s. a week upon all Students, actually resident in College whose names shall not be on Commons at all times except during the long Vacation; it being understood that the 5s. a week Commons Fund shall be considered an equivalent to this fine during the week in which Commons Fund is

7. No Student's name shall be placed on the Commons List without previous payment to the Clerk of the Buttery of the amount due for the period during which his name is placed on Commons. This rule is to

apply in the case of sons of Fellows and Professors.

Regulations with reference to Commons. By order of the Bursar, Jan. 30, 1904-

Long Commons. - During the period known as "Long Commons," a Student may put his name on Commons on any day of the week, and will be charged at the rate of 1s. 8d. per day for the remaining portion of the week.

For the remaining weeks of "Long Commons," his name must be on

Commons, and he must pay accordingly.

All Students are expected to dine on Commons every day; but those who wish to dine with their friends on Sunday shall pay 10s. for the week instead of 11s. 8d. If the Student has the permission of the Junior Dean, in exceptional cases, to dine with his friends on Saturday as well as Sunday, he shall pay 8s. 4d. instead of 11s. 8d.

Short Commons. - During the period known as "Short Commons" (i. e. the six or seven weeks of lecture term), a Student joining Commons on Monday will pay 5s. If he joins on Tuesday he shall pay 4s., and

if afterwards according to rule.

If a Student desires to dine with his friends on Sunday during Short Commons, he shall pay 6s. for the week instead of 6s. 8d. If he has the permission of the Junior Dean to dine out with his friends for Saturday as well as Sunday, he shall pay 5s. for the week instead of 6s. 8d.

Note.—In cases where a Student wishes to leave College, for reasons which the Junior Dean considers sufficient, such Student will be allowed to keep his name on Commons for 1s. a day during Short Commons, and 1s. 8d. a day during Long Commons up to the day on which he

Ten Scholars, or other Students, who are called Waiters, are annually appointed to say Grace before and after meat in the Commons Hall.

The Grace must be repeated memoriter, and in Latin, in a form prescribed by the Statutes of the College. (Stat. Coll. cap. xvi.)

Night-Roll.—All Students resident in the College, below the standing of B.A., must attend night-roll, which is called at nine o'clock. After night-roll no Student is permitted to pass out of College without a written order.

Exemption from attendance at night-roll may be granted on the ground of diligence and seniority. The extent of this indulgence is decided by the Junior Dean, subject to the approval of the Provost and the Senior Dean. Those who wish to remain out of College after twelve o'clock must previously obtain special permission.

Houses of Residence for Students.—The Board of Trinity College have decided to make it compulsory for all Students to reside in certain houses, in which the Board can be assured of their proper accommodation. In order to ascertain the suitability of these houses, the Board have appointed a House of Residence Committee to inspect and select houses which are suitable. The following are the members of the Committee:—the Senior Dean; the Junior Dean; Robert Russell, M.A.; W. Kennedy, M.A.; Rev. R. M. Gwynn, M.A.; J. Joly, Sc.D.; A. Francis Dixon, Sc.D.; H. H. Dixon, Sc.D.; Walter C. Stevenson, M.D., Hon. Sec.

Any householder in or near Dublin may apply to any member of this Committee to have his (or her) name placed on the books of the Committee as willing to afford accommodation for students. These books will be accessible to students seeking lodgings.

Every house, before being entered on the Committee's books, must have been inspected by the Sanitary Inspector, and passed by the House of Residence Committee. The householder must also satisfy the Committee as to the general suitability of the house for Students by giving suitable references in writing. These references may be addressed to any member of the Committee. Householders are not charged any fee for having their names entered on the Committee's books, but will be required to furnish an account of the accommodation they can supply, and their terms. It will be in the discretion of the Committee to remove from their books the address of any house of residence at any time.

In order to retain their names on the books, householders

must comply with the following rules:-

1. To forward to the Hon. Secretary of the House of Residence Committee on November 20th, February 20th, and May 20th of each year, a list of the Trinity College Students who are at the time in their houses, or who have resided there since the last return was sent in.

2. To inform the Hon. Secretary in the months of September and December, and at Easter, what accommodation they can offer for Students. In absence of this notification it will be assumed that the house is fully occupied.

3. To notify immediately the Hon. Secretary of any case of serious

illness occurring in the house.

4. To give facility to members of the Committee for inspecting the house, and to produce a recent sanitary certificate of the house if required.

Walter C. Stevenson, M.D., was appointed Sanitary Inspector for three years, on Nov. 28, 1908, and was re-appointed in 1912, on condition of his undertaking the duty of inspecting the residences of the College skips.

# Course in Arts.

### ENTRANCE.

1. THE mode of admission into this University is by passing an Examination.

The Senior Lecturer is authorized to allow a Graduate in Arts of any University chartered under the Crown to have his name placed on the College Books, on payment of the Entrance Fee, without passing the

Matriculation Examination.

Candidates who have passed in the Senior Grade Examination held under the Board of Intermediate Education, Ireland, are qualified for Entrance in Trinity College on passing a further Examination in those subjects, if any, of the Trinity College Entrance Examination which are not included in those in which they have passed at the Intermediate Examination.

All persons desirous of becoming Members of the College and of the University must, at their Entrance, place themselves under one of the Tutor Fellows who receive Pupils. The Collegiate interest of Pupils are under the guardianship of their Tutors, and to them all applications for information, whether before or after Entrance, should be made. Applications to the Board or to the Senior Lecturer must come from students not directly. but through their respective Tutors. Students may enter as Fellow-Commoners or Pensioners. But a Nobleman, the son of a Nobleman, or a Baronet, may enter as Nobilis, Filius Nobilis, or Eques. Students of limited means may compete for Sizarships, and, if successful, may enter as Sizars. Students entering after March 21, and at or before the Autumn Entrance in October, are permitted to join the Junior Freshman Class which was formed in the previous November, on payment of the half-year's fees due by members of that class, in addition to the Entrance Fee (see under 'College Charges').

There are five Matriculation or Entrance Examinations in the year, each lasting for two days. Of these, the Midsummer Entrance in Trinity Term, and the Autumn Entrance at the commencement of Michaelmas Term, are known as the Principal Entrance Examinations. At all Entrance Examinations candidates who obtain 65 per cent. and upwards are given High Places. Candidates who are given High Places are arranged in order of merit, and their names, together with those of the Schools from which they present themselves, are published at the conclusion of the Examination. The Senior Lecturer is authorized to issue

Special Certificates to those who are so selected.

The two Principal Entrances and two of the other Entrance Examinations are held on the days immediately previous to the four Examinations of the Junior Freshman Class (including the Supplemental Hilary Examination in June), so as to enable students from a distance to pass a Term Examination as well as the Entrance without unnecessary loss of time. The fifth Entrance is held immediately before the Michaelmas Lectures begin. The dates of these Examinations may be found in the Almanac, and are also given under the heading 'Days of Examination.' In addition, the Senior Lecturer grants a Special Examination to such Students as are unable to present themselves at the regular Examinations, on reasonable grounds being given.

Candidates who have passed a Public Entrance Examination to the satisfaction of the Senior Lecturer are given a Large Entrance Certificate; all other candidates, who are allowed to proceed with their course, are given a Small Certificate, which cannot be used as evidence that they have passed the Public Entrance Examination of Trinity College; but such candidates will be given the Large Certificate as soon as they shall have passed a Term Examination.

The Entrance Examinations commence at 9.30 a.m.

# 2. Course for Principal and Ordinary Entrances.

English Composition; Arithmetic; Algebra (the first Four Rules, Fractions, and Simple Equations); Geometry, see below; English History; Modern Geography; Latin with Latin Composition; and any one of the following Languages: - Greek: French, About, Sans Dot, Les Parents de Bernard (Educational Co. of Ireland); German, Gerstäcker, Germelshausen (Rivington); Italian; Spanish; Russian. (For the Entrance Course in Italia , Spanish, and Russian, candidates are to apply to the Senior Lecturer.) In Greek and in Latin students may select any two Greek and any two Latin authors. (Two books by the same author will not be accepted in lieu of two distinct authors.) The quantity of each author to be presented for examination must be not less than the equivalent of two Books of Virgil, or Xenophon, or of a Greek play. Candidates will be examined viva voce in the translation, grammar, and subject-matter of the works which they submit. The Examination in French and German will be partly viva voce in the prescribed books, and partly by papers, containing passages (unprescribed) for translation from these Languages, and passages for translation from English into the same.

The Course in Geometry\* is that covered by Euclid, Books i., ii., and Book iv., Props. 1, 2, 3, 4, and 5, with some additional Elementary Practical Constructions, and also some Elementary loci. Geometrical Methods other than those followed by Euclid will be accepted, such as regarding tangents as limiting positions of chords, &c. Some questions will be set on practical constructions, so that candidates will have to provide themselves with a ruler, set square, protractor, and pencil compasses. (A syllabus giving more detailed information on the Course in Geometry may be obtained on application.)

<sup>\*</sup> In learning Geometry any of the following books may be used instead of Euclid's Elements: -- Baker and Bourge, Godfrey and Siddons, Hall and Stevens, Purser.

## 3. Prizes obtainable in connexion with Entrance.

1st. About ten Sizarships annually in Mathematics, Classics, Experimental Science, Modern Languages, Hebrew, and Irish. The regulations respecting the Course, Privileges, &c., are given below.

2nd. Sixteen Junior Exhibitions, twelve of £20 and four of £15 a year, tenable for two years. See under 'Junior Exhibitions.'

3rd. Extra Exhibitions or Prizes may also be granted by the Board to deserving Candidates on the results of the Examinations for Junior Exhibitions and Sizarships.

4th. The Kidd Scholarship, value about £80 per annum, tenable for four years. The Examination for this Scholarship is held each fourth year, unless vacancies should occur oftener. See under 'Kidd Scholarship.' An Examination will be held in 1921.

5th. The Charles Wilkins Memorial Prize in Mathematics for Women. See under that heading.

6th. Twenty-six Entrance Prizes, namely, a First Prize of £5 and a Second Prize of £2 in each of the following subjects (provided sufficient merit be shown by the Candidates):—

- 1. Greek Verse,
- 2. Latin Verse.
- 3. Greek Prose. .
- 4. Latin Prose.
- 5. English Literature and Composition.
- 6. English History and Modern Geography.
- 7. French.
- S. German.
- 9. Hebrew.a
- 10. Experimental Science.
- 11. Natural Science. 12. Modern Irish.
- 13. Scripture.

A Student may compete for one or more of these Prizes. The names of the successful Candidates, and the Schools from which they present themselves, are published at the conclusion of the Examinations.

These Examinations are held early in Michaelmas Term, and are open to all Students who have not completed their nineteenth year before the 1st of June immediately preceding the Examination, and who are commencing the Junior Freshman Year, i.e., to those Students who have entered since March 21st, and have not paid any half-yearly fee. They commence at 10 a.m.

The following Courses have been appointed:

## English Literature.

Pancoast, Introduction to English Literature, Part ii., chapters 4 and 5; Part iii., chapter 2, and Part iv., chap. i. Shakspere, Merchant of Venice, Richard III., Macbeth.

a Hebrew Sizars are not eligible for this Prize, except in the absence of other deserving Candidates.

## English Literature .- continued.

Milton, Comus and Paradise Lost, books iii. and iv.
Macaulay, Essays on Addison, on Boswell's Life of Johnson, and
on Moore's Life of Byron.
Trench, English Past and Present.

## English History and Modern Geography.

Gardiner, Student's History of England.
Seeley, The Expansion of England.
Trevelyan, England under the Stuarts.
Gregory, Structural, Physical, and Comparative
Geography,

70 marks.

(Students are recommended to use Gardiner's Atlas of English History.)

### French.

Balzac, Pierrette. (Oxford University Press.) Sand, François le Champi (Oxford Higher French Series). Hugo, Hernani (Oxford Higher French Series).

### German.

Schiller, Maria Stewart. Goethe, Egmont. Kurz, Die Humanisten (Macmillan).

The merits of the Candidates in French and German will be tested by conversation, translation, composition, and questions in Grammar and Literary History.

## Hebrew.

Grammar (including written exercises on the paradigms of nouns and verbs) and the first eight Psalms.

## Modern Irish.

Modern Irish Grammar and Composition.

Oton-bhotlac Ponair Peara an 'Eminn.

## Experimental Science.

The Course appointed in Experimental Science consists of two sub-courses, Experimental Physics and Chemistry, which are as follows:—

Experimental Physics—Candidates will be expected to be familiar with elementary physical principles, such as those necessary to explain the use of levers, eog-wheels, whistles, pumps, lenses, magnets, the magnetic effects of electric currents, the measurement of atmospheric

pressure by the mercurial barometer.

There will be a practical examination in which their ability to make simple physical measurements may be tested by requiring them to measure lengths, areas, volumes, weights, velocities, accelerations, the pressures of liquids, or the focal lengths of lenses. They should be able to plot their results on squared paper, draw plans to scale of the things they measure, and plot the paths of rays of light passing through or reflected by plane surfaces.

They will be expected to be familiar with the metric system.

Chemistry—Physical and Chemical changes of matter—how distinguished. Elements and compounds. Law of definite proportions—

Equivalents.

Water—its chief physical and chemical properties—its ultimate composition—Analysis—Electrolysis—Chief properties of hydrogen and oxygen. Synthesis of water. Laws of gaseous combination. Elementary ideas relating to molecules and atoms. Avogadro's law. Water as a solvent—Natural waters. Peroxide of hydrogen. Valence—law of multiple proportions.

Atmospheric Air—the principal substances contained in it—how they are recognized—their condition in air. Relations of air to processes of combustion and animal respiration. Nitrogen—its chief compounds with oxygen and hydrogen. Acids, alkalies, salts—their general

characters.

Carbon—its forms. Allotropism. The two oxides of carbon—their chief physical and chemical properties and relations. The hydrides of carbon, marsh gas and olefiant gas. Coal gas and the nature of flame. Deductions of formulæ and solutions of simple chemical problems.

At the Practical part of the examination, candidates will be expected to recognise one or more of the elements or compounds named above, or to prepare any of them. They may also be asked to perform simple quantitative operations illustrating general principles, such as—the action of heat on a metallic salt, the displacement of one metal by another from solution, or the measurement by the volume of a gas evolved.

Note. - Systematic qualitative analysis is not required at this stage.

The course appointed in Natural Science consists of three sub-courses, Zoology, Botany, and Geology, which are as follows:—

Zoology—External morphology of Earthworm; Insect; Frog. Life History of Butterfly or Moth; Frog. Thomson's Outlines of Zoology may be consulted. Botany—Stenhouse's Introduction to Nature Study, Part i. Geology—Huxley's Physiography.

Scripture.

First ten chapters of Genesis. I and II Samuel.
Isaiah, Chapters xl. to end.
St. Luke's Gospel.
Acts of the Apostles.
Epistle to the Galatians.

### The Examiners are-

For Greek and Latin Verse and Prose:—The Regius Professor of Greek and the Professor of Latin.

For English History and Modern Geography:-The Professor of

Modern History and one Examiner appointed by the Board.

For English Literature and Composition:—The Professor of English Literature and one Examiner appointed by the Board.

For French:—The Professor of the Romance Languages and one

Examiner appointed by the Board.

For German: —The Professor of German and one Examiner appointed by the Board.

For Hebrew: -The Professor of Hebrew and one Examiner appointed

by the Board.

For Experimental Science: The Professor of Natural and Experimental Philosophy and the Professor of Chemistry.

For Natural Science :- The Professors of Botany, of Geology and

Mineralogy, and of Zoology and Comparative Anatomy.

For Modern Irish:—The Professor of Irish and one Examiner appointed by the Board.

For Scripture :- Rev. George Wilkins, B.D., and Rev. R. M. Gwynn,

B.D.

## 4. SIZARSHIPS.

SIZARS are Students of limited means, who have their commons free of expense, and are exempted from annual fees. Women Students who obtain Sizarships are allowed £12 a year in lieu of

commons. The Entrance fee for Sizars is £1 1s. 3d.

The poverty of the Candidates is one of the qualifications to be inquired into before they are admitted Sizars. Candidates for Sizarship are required to send in to the Senior Lecturer, on or before the 1st day of June in each year, a statement proving that they are persons of limited means and entitled to compete for admission on the ground of poverty; and only those persons who appear to the Senior Lecturer to be qualified are permitted to compete. In case of failure to comply with this rule, the merits of the case are to be considered by the Senior Lecturer.

No candidates are admitted to the Sizarship Examination who (1) are already Matriculated Students of the University; or

(2) are Graduates of any Chartered University; or (3) are over nineteen on the 1st of June of the year in which they compete.

The Board may, if they think fit, award, independently of the Sizarship Examination, not more than one Sizarship in Mathematics and one in Classics to such members of the Junior Freshman Class as they may consider to have especially distinguished themselves since their matriculation, and to be otherwise suitable to be awarded a Sizarship. In this case no limit of age is imposed.

The Board offer Sizarships in Experimental Science, to be competed for by such candidates as can produce definite evidence

that they have already received Laboratory instruction.

Students who enter College as Sizars are permitted to hold their Sizarships for four years. In the event of persons who are already Students of the College being admitted as Sizars, the duration of their Sizarships shall not exceed four years from the Sizarship Examination next succeeding their entrance into College. Sizars who fail to keep their class, or who drop a class without the express permission of the Board, ipso facto, vacate their Sizarships.

The Examination for Sizarships is held annually at the end of Trinity Term, and is marked in the Almanac for the year. The

Examination commences at 9.30.

Sizarships in Mathematics, Classics, Experimental Science, Modern Languages, Hebrew, and Irish.—The Sizarship Examination lasts for two days, and 400 marks are assigned at it. The first day, and the morning of the second day, are devoted to the special subject, Mathematics, Classics, Experimental Science, Modern Languages, Hebrew, or Irish, and 300 marks assigned to it. The last afternoon is devoted (1) to an English Essay (counting 50 marks), for which all candidates, whether in Mathematics, Classics, Experimental Science, Modern Languages, Hebrew, or Irish, must compete; (2) for the candidates in Mathematics and Experimental Science, to an easy paper in Latin Composition and a viva voce Examination in a Latin and a Greek author of his own selection, it being permissible for candidates to substitute French or German for Greek; and (3) for the candidates in Classics, Modern Languages, Hebrew, and Irish, to a paper in Arithmetic and Algebra, and a vivâ voce Examination in Geometry (as in the Entrance Course); and this portion of the Examination will, in each case, count 50 marks. ('andidates in Modern Languages must also pass a qualifying Examination in Latin. and candidates in Irish a qualifying Examination in Latin and in Greek, or French, or German, as arranged for the Entrance Course.

#### Classics.

First Morning. - Translation from Greek authors (unprescribed), 70 marks.

First Evening .- Translation from Latin authors (unprescribed),

70 marks.

During the first day the candidates are examined vivâ voce in one Greek and one Latin author, as prescribed below. The mark assigned to this vivâ voce Examination is 40. The prescribed authors are—

Any three books of Homer, or any one book of Thucydides. Any one book of Livy, or any one of the following portions of Horace:—(a) Odes, (b) Satires, (c) Epistles, including the Ars Poetics.

[Candidates must send to the Senior Lecturer, at least a month before the Examination, notice of the portions of these authors in which they intend to present themselves.]

Second Morning.—Greek Prose Composition, 40 marks.

Latin Prose Composition, 40 marks.

Ancient History (vivâ voce in a class),

40 marks.

[Candidates are expected to know the principal facts in Greek History, and the Outlines of Greek Literature and Art, from the earliest times to 323 B.C.; and the principal facts in Roman History, and the Outlines of Roman Literature, from the earliest times to 37 A.D.]

A paper in Greek and Latin Verse Composition is set as a voluntary exercise on the third morning. It counts 40 marks; but no credit is given unless positive merit is shown.

### Mathematics.

Geometry .- Deductions from Euclid.

Geometrical treatment of the general focal properties of conics with particular application to the ellipse and parabola.

The Methods of Coordinates, Graphs, Analytical Geometry of the Right Line, and of the circle in rectangular Cartesian coordinates.

Algebra.—Arithmetical and Geometrical Progression—Scales of Notation—Surds and Imaginary Quantities—Quadratic Equations and Simultaneous Equations of the second Degree—Permutations and Combinations—Binomial Theorem—Logarithms—Exponential and Logarithmic Series—Partial Fractions—Continued Fractions—Algebraic Series.

N.B.—Hall and Knight's Higher Algebra, chaps. i.-xvii. (inclusive), xxiii., xxiv., xxv., xxix., is recommended.

Theory of Equations.—Relation between the Roots and Coefficients of Equations—Elementary Symmetric Functions of the Roots—Transformation of Equations—Horner's Method of Solving Numerical Equations.

Trigonometry.—To the end of the Solution of Plane Triangles—De Moivre's Theorem—Exponential Forms of Trigonometric Functions—Trigonometric Series.

Elementary Mechanics.—Laws of motion; composition and resolution of velocities, accelerations, and forces; equilibrium under coplanar forces; polygon of forces; simple applications of graphic methods; simple machines; work and energy.

#### Experimental Science.

Elementary Mathematics.—A Paper will be set in Elementary Mathematics. Such a knowledge of Mathematics will be expected as is required for a proper study of the Course in Experimental Science. Simple questions may be set in Mechanics, Hydrostatics, and Geometrical Optics. Candidates will be expected to be familiar with the use of squared paper, and to know how to plot their results on it.

Experimental Physics.—Measurement of length, area, volume, mass, and weight; density, time, velocity, acceleration, and pressure—Simpler phenomena of Heat, Light, and Sound.

There will be a Practical Examination as well as a Written

Examination.

Chemistry.—General properties of substances—Mixtures and solutions—Processes employed in the Laboratory, such as evaporation, distillation, solution, crystallization, filtration—Effect of heat on solubility of solids and gases in water—Oxidation of elementary substances by heating in air or oxygen, and by other methods—Properties of oxygen and nitrogen—Atmospheric air, its composition and properties—Preparation and properties of the commoner acids and alkalies—Calcium carbonate, carbon dioxide, lime—Action of acids on metals—Hydrogen—Water—Chemical elements and compounds—Distinction between metals and non-metals, and between chemical compounds and mechanical mixtures—Volume of gas evolved by action of various acids on metals—Effect of temperature and pressure on the volume of a gas—Density of a gas—Calculation of the weight of a gas from its volume and density—Indestructibility of matter—Law of definite proportions—Law of equivalent weights.

There will be a Practical as well as a Written Examination.

#### Modern Languages.

One Sizarship is offered each year in Modern Languages, French and German.

The Examination will consist of passages (unprescribed) for translation from French and German, and of passages for Composition in both languages. The candidates will also be examined vivâ voce in the following authors:—

- French, . . . C. Delavigne: Louis XI. (ed. Eve).
  Michelet: Louis XI. et Charles le Téméraire (ed. Ropes).
- German, . . Freytag: Der Staat Friedrichs des Grossen (Cambridge).

#### Sizarships in Hebrew.

To encourage the study of Hebrew, one Sizarship is usually given annually. The special Course will consist of the Latin Prose Composition and the *vivâ voce* portion of the Examination for Classical Sizarships, together with the following Course of Hebrew:—

Hebrew Grammar. Exodus, Chaps. i.-xi. (inclusive). Psalms, i.-xxiv. (inclusive).

In determining the election to the Hebrew Sizarship, equal weight

is allowed to the answering in Classics and in Hebrew.

No Student is elected to a Sizarship for answering in Hebrew unless the Examiners report him to the Senior Lecturer as having positive merit of a high order.

#### Sizarships in Irish.

For the encouragement of the study of Irish, one Sizarship is usually given annually. The special Course will be as follows:—

- (a) A thorough knowledge of Irish Grammar is required.
- (b) Passages are set for Translation at sight from Irish into English, and from English into Irish.
- (c) Candidates are examined viva voce in these books :-

Eachtra Lomnochtáin.

Poems of Donnchadh Ruadh Mac Conmara (ed. Flannery).

No Sizarship is awarded to any Candidate unless the Senior Lecturer considers that sufficient merit has been shown.

Removal of the limitation on the number of Sizars.—Before the year 1911 the maximum number of Sizars was fixed at thirty and, in view of the inequality of the number of vacancies from year to year thus produced, it was resolved by the Board on 18th November, 1911, that, pending the obtaining of an Ordinace to legalize the use of the name "Sizar," such a number of special Sizarship Exhibitions, equal in value to Sizarships, should be awarded, that in effect the number of Sizars elected annually should be about ten.

On 8th December, 1917, it was ordained that the Board may elect to Sizarships in each year all candidates who display marked merit at the Sizarship Examination, irrespective of the number of vacancies created by the expiration of Sizarships previously

awarded.

Reid Sizarships.—In the scheme approved by the Master of the Rolls, filed 7th August, 1888, it was directed that the income of the Reid Sizarship bequest should be applied to found additional Sizarships or Exhibitions in the nature of Sizarships, "not to

exceed five in number, open only to Students of limited means, natives of the County of Kerry, who, having failed to obtain ordinary Sizarships, may be deemed to have shown sufficient merit. Such Exhibitions to be held on conditions similar in all respects to those upon which ordinary Sizarships are held in the said College, and not to preclude such Exhibitioners from obtaining any other Exhibitions or Prizes, for which an ordinary Sizar would be eligible, and the said College shall determine the annual stipend to be allowed to each such Exhibitioner, or the privileges in lieu of such stipend, in such way, as to place him, with respect to exemption from fees, free commons and free rooms, on a footing similar to that of ordinary Sizars."

#### UNDERGRADUATE COURSE.

#### Explanation of Terminology.

There are three Terms in each Calendar year, i.e., Hilary Term, beginning on January 10, and ending on March 25; Trinity Term, beginning on April 15, and ending on June 30; and Michaelmas Term, beginning on October 10, and ending on December 20. If, however, Easter happens to fall within the limits of Hilary or of Trinity Term, that Term is increased by an additional week.

The Academic Year commences in the beginning of November, i.e., with the Lectures of the Michaelmas Term. Afterwards, in the beginning of Hilary Term, there are the Hilary Term Examinations in the subjects of the Michaelmas Lectures. Then follow the Lectures of Hilary Term, and the Trinity Term Examinations, and finally the Lectures of Trinity Term and the Examinations of Michaelmas Term, which close the Academic Year, which therefore extends from November to November.

Freshmen and Sophisters.—During the first Academic Year, Students are called Junior Freshmen; during the second Academic Year, Senior Freshmen; during the third and fourth years, Junior and Senior Sophisters; then Junior, Middle, and Senior Bachelors; but a Student belonging to the Junior Bachelor Class is called a Candidate Bachelor, not a Junior Bachelor, until he has actually taken the B.A. Degree. Graduates who are of standing entitling them to take out the Degree of Master in Arts are called Candidate Masters. They are of this standing three years after they have passed the Examination for the Degree of B.A.

<sup>\*</sup> It was also arranged that the residue (if any) of the income of the Reid Sizarship endowment might be applied in paying the usual fees to the Examiners at the Examinations for such Sizarships, and in such manner as the Board of Trinity College might think best calculated to encourage superior education in the said County, as for instance, by assigning from time to time stipends to such Schoolmasters as may distringuish them selves in preparing Students for Trinity College, Dublin, such stipends to be given on condition that such Master or Masters shall undertake to prepare, free of expense, as Day-Scholars, a certain number of boys of limited means for the Sizarship Examination of the College, or in such other way as to the said College may seem most effectual and expedient for the promotion of superior education in the said County.

By a rising Junior Freshman is meant a Student who, having matriculated, has not yet entered on his actual Junior Freshman year, which begins in November.

At the commencement of each Term there is a general Pass Examination for each of the four academic classes, with the following exceptions:—The examination held at the end of the Senior Freshman year, or the Final Freshman Examination, commonly called the Little-Go, is held at the end of Trinity Term, and Supplemental Examinations are held in the following October at January. Also the Degree Examination is held in December at the end of the fourth year, when a student has become a Candidate Bachelor, and Supplemental Examinations are held in the following January and April.

At the beginning of each Term there are also Honor Examina-

tions in the various Honor Schools.

In each Term the undergraduate Lectures in Arts, both those of the Pass course and those of the Honor Schools, commence after the general Pass examinations of the several classes are over.

A Student is said to have credit for a Term by Lectures or to have kept a Term by Lectures when he has attended with diligence the Lectures prescribed for that Term. He is said to have kept a term by Examination when he has passed Examination in the subjects of the Lectures prescribed for that Term. Thus, for example, a Student keeps Michaelmas Term by Lectures when he attends the Lectures given daily during Michaelmas Term; and he keeps Michaelmas Term by Examination when he passes the Examination in the same Courses held at the beginning of the succeeding Hilary Term. Two Terms are said to be distinct when they are not kept by Lectures and by Examination in the same courses; for example, when a Junior Freshman attends Lectures in Michaelmas Term, and passes the Hilary Examination in January or the Supplemental Hilary Examination in June, he does not thereby get credit for two distinct Terms.

## 6. Introductory Note.

Students who are familiar with the regulations prior to the year 1918 will observe that there are considerable changes in those now issued, the object of which is to secure that every student shall, throughout his College Course, be required to make the best use of his opportunities by full attendance on Lectures. A Lecture Attendance Committee has been appointed to secure the proper working of the new regulations; and also to prevent their resulting in undue hardship to students whose circumstances render it impossible or undesirable for them to attend on the instruction provided by the College. But while it is not intended

to prevent the possibility of students keeping Terms by examination alone, permission to do so will in future be granted only when sufficient reason is shown. Before entrance a student may apply for such permission to the Lecture Attendance Committee through the Senior Lecturer or the Tutor under whom he intends to enter; but if permission be granted, after Entrance it will be necessary for him formally to renew the application each Term through his Tutor, in order to show the continued existence of the reasons which justified the permission originally.

#### Course of Study.

In order to obtain the Degree of B.A., or Bachelor in Arts, a Student, unless exempted, is required to keep every Term by Lectures, and is not required to keep every Term by examination, but must keep one Term by Examination in the Junior Freshman vear, pass the Final Freshman Examination, keep one Term by Examination in the Junior Sophister Year, and pass the Degree Examination. In the normal course a Student keeps a Term by Lectures when he attends with diligence the prescribed Pass Lectures; but he may substitute Honor Lectures for the Pass Lectures in the same subject, and if properly qualified (see § 21) may in his Freshman years keep his Term by attending one Course alone of Honor Lectures. Professional Students also are allowed to substitute in the Sophister years the lectures of their Schools for one of the courses of Lectures required from other Students. Also the Lecture Attendance Committee is empowered to allow a Student to substitute other Lectures for the l'ass Lectures, if application is made to them through the Tutor of the Student, and if they deem the reason adequate, and consider the substitution desirable in the interests of the Student.

#### 7. Exemptions from Attendance on Lectures.

In dealing with exemptions from the regulation that Students must keep every Lecture Term, it is laid down as a fundamental rule that to obtain the B.A. Degree all Students except Medical Students must obtain credit for the following minimum of eight Terms, viz.:—They must keep one Term by Examination in the Junior Freshman year, pass the Final Freshman Examination, keep one Term by Examination in the Junior Sophister year, pass the Degree Examination, obtain credit for two other distinct Terms either by Lectures or by Examination in the Freshman years, one of which must be in the Senior Freshman year, and obtain credit for two other distinct Terms either by Lectures or by Examination in the Sophister years, one of which must be in the Senior Sophister years.

A special Course in Arts has been arranged for Medical Students.

Students while attending in full the Lectures of the Professional School of Divinity, or Engineering, or the Indian Civil Service, or the Army, or Agriculture, or Forestry, are not required to keep every Term by Lectures, but may omit keeping a particular Term, provided that they keep the above minimum of eight Terms. In every Term, however, in which they do not intend to keep the Term by Lectures, they must give information to the Senior Lecturer, so that an entry of their professional qualification may be inserted in the Term Book.

In the case of other students who, owing to their circumstances, seek exemption from keeping a particular term by Lectures, it is provided that, on sufficient reason being shown, the Lecture Attendance Committee may either allow a student to keep the Term by Examination instead of by Lectures, or, if they think fit, grant him complete exemption from attendance on Lectures during the Term. Such students must submit their reasons to their Tutors, who must lay them in writing before the Lecture Attendance Committee, at least one week before Lectures begin, and if in their opinion the reasons are sufficient, an entry to that effect will be made in the Term Book.

A student against whose name there is not a satisfactory entry covering each Lecture Term of the Academic year, does not rise with his class.

It is not intended to deprive non-resident students of the possibility of obtaining the B.A. Degree by examination alone, but this concession will be granted only to students who satisfy as above the Lecture Attendance Committee that their reasons for non-attendance at Lectures are sufficient, and such students will have to keep the minimum number of eight Terms by examination (making with the Entrance nine examinations in all).

8. A student who desires to avail himself, to the full extent, of the benefit of a University Education, should, in addition to the Ordinary Course, take the Lectures and Examinations in some one or more of the various Honor and Prize Courses. He is also permitted to attend such of the Professional Lectures as deal with subjects of interest to him.

A Junior Freshman or a Junior Sophister who fails to obtain credit for the compulsory examination of his year loses his class, but in other cases where a student fails to keep the exercises necessary to rise in November to the next higher class, he may, with the permission of the Lecture Attendance Committee, retain his class by keeping certain supplemental Terms. In all such cases application must be made through the Senior Lecturer.

When a Student loses his class, he retains credit for all the Terms he has already kept, but unless exempted must conform to the rule of keeping every Term by Lectures so long as his name remains on the College Books.

#### 9. Abridgment of Course of Study or Saving a Year.

The regular period of Study extends over four years, but there are provisions by which a Student can obtain his Degree in less than four calendar years; for instance, under certain circumstances, a Student entering in October may obtain his Degree in about two years and eight months.

A Student who enters before the 21st of March in any year is placed in the Junior Freshman Class which commenced in the previous November, and a Student who enters on or after the 21st of March is in the ordinary course placed in the class which commences in the succeeding November. But a Student entering on or after the 21st of March and before the Junior Freshman Examination in October is permitted to join the existing Junior Freshman Class (i.e. that formed in the previous November) on payment of the half-yearly fee of eight guineas paid in April by members of that class; and if he passes the Trinity Term Examination, or the Hilary Supplemental Examination, or the Michaelmas Examination, and has, unless exempted, kept Trinity Term by Lectures, should he have entered before they commence, he will begin the Senior Freshman year in the November succeeding his Entrance. Such a Student is said to have saved his year, and it will be necessary for him, as for any other member of the Class, to pay a second half-yearly Fee on or before the Friday before the first Saturday in November. Thus the total amount of the Fees payable during the Course is the same whether the vear be saved or not.

In the Senior Sophister year a somewhat similar advantage is sometimes granted. A Student who obtains the necessary permission from the Senior Lecturer (see § 14) is allowed to rise from the Senior Sophister Class to the Candidate Bachelor Class in the June instead of the November of his Senior Sophister year on payment of the Fees necessary to entitle him to be placed in that Class, and is then permitted to answer for his Degree in June. The names of such Students are kept on the books until the following June without further payment, and the total amount of the Fees payable is not increased. Such permission will be always granted to Students who have kept all the Terms since Entrance by Lectures.

10. The following rules repeat in detail the Academic exercises required from Students in each of the Undergraduate years:—

#### Junior Freshman Year.

In the Junior Freshman year, a Student must obtain credit for one Term by Examination, otherwise he will not be allowed to become a Senior Freshman in November, but will be put down to the Class then commencing the Junior Freshman year.

Unless exempted, he must also have kept every Term after his

Entrance by Lectures.

For the regulations with regard to the keeping of Catechetical Terms, which is optional, see Catechetical Course.

In June there is a Supplemental Examination in the subjects of the Hilary Examination, but only Students who have not already credit for a Term Examination are permitted to present themselves at this Examination. (Students who are exempted should observe that attendance on the Michaelmas Term Lectures and passing the Supplemental Hilary Examination in June do not entitle them to credit for two distinct Terms.)

#### 11. Senior Freshman Year.

To rise with his class (i.e. to become a Junior Sophister in the November which ends his Senior Freshman year), a Senior Freshman must, in addition to the compulsory Junior Freshman Examination, have kept two other distinct Terms either by Lectures or by Examination before the Lectures in the Trinity Term of his Senior Freshman year, and one of these Terms must be in the Senior Freshman year. He must also pass the Final Freshman Examination, or Little-Go, held at the end of Trinity Term, or the Supplemental Examination held at the beginning of Michaelmas Term, and unless exempted must have kept the three Terms of his Senior Freshman year by Lectures.

For the regulations with regard to the keeping of Catechetical Terms,

which is optional, see Catechetical Course.

In the case of Army Candidates permission is occasionally given by the Board to come up for the Final Freshman Examination in the April preceding the regular date. Such Students must then pay both the April and November Fees. (Order of the Board, April 25, 1903.)

12. A Student who fails to pass the Final Freshman Examination in his Senior Freshman year may supplement it in the following January, and shall attend in Michaelmas Term such Lectures as the Senior Lecturer may consider advisable. If he passes in January, he proceeds with his Junior Sophister year; but if he fails, he is degraded to the Senior Freshman Class, and attends such Lectures as the Senior Lecturer may prescribe.

No Senior Freshman Student can be awarded a Prize at the Michaelmas Examinations of his Class unless he has passed the

Final Freshman Examination.

## 13. Junior Sophister Year.

In the Junior Sophister year, a Student must obtain credit for one Term by Examination; otherwise he will not be allowed to become a Senior Sophister in November, but will be put down to the Class the commencing the Junior Sophister year. Unless exempted he must also have kept the three Terms of the Junior Sophister year by Lectures.

#### Senior Sophister Year, and Degree Examination.

14. In addition to the compulsory Examination of the Junior Sophister year, a Senior Sophister must keep two other distinct terms before the Trinity Lectures of his Senior Sophister year, and one of these Terms must be in the Senior Sophister year. Also unless exempted he must have kept the three Terms of his Senior Sophister year by Lectures.

Senior Sophisters who have satisfied these requirements are raised in November to the Candidate Bachelor Class, and may compete for the Degree Examination in the following December or January or April.

By the special permission of the Scnior Lecturer, they may also be raised in June to the standing of Candidate Bachelors on payment of the half-yearly fee due before a Student becomes a Candidate Bachelor, and they would then be entitled to present themselves at the Degree Examination in June. The names of such Students remain on the College Books till the first Saturday in the succeeding June. Such permission, however, is not extended to Students who have to keep an Examination in Trinity Term in order to qualify for admission to the Examination for Degree.

In granting this permission regard is had to the merit which the Student has shown at the Final Freshman and other Examinations, as well as the importance to the Student of obtaining the Degree at the earlier date. As stated before, such permission will always be granted to Students who have kept all the Lecture Terms since Entrance. Students seeking this privilege must make application to the Senior Lecturer on or before June 1.

In cases of extreme urgency the Board sometimes allow Senior Sophisters to be raised to the Candidate Bachelor Class and answer for their Degree in April.

A Senior Sophister who has not satisfied the above requirements may by permission of the Senior Lecturer be raised provisionally to the Candidate Bachelor Class, on condition of his performing such supplemental exercises as the Senior Lecturer may prescribe, and he may (provided his name is on the College Books) proceed

to the Degree Examination in any Term subsequent to that in

which he has completed the exercises.

No Student is entitled to present himself as a candidate at the Moderatorship or December Degree Examinations of his class unless he has by the end of Trinity Term kept all the Terms required before the Degree Examination; but in exceptional cases he may be allowed to do so by special permission of the Board, provided that he has performed such supplemental exercises as may be necessary to entitle him to sit for the Degree Examination.

#### Mode of obtaining Credit for the various Terms

As stated in § 5, Terms may be kept by Examination or by Lectures.

15. Keeping of Arts Terms by Examination.

All students desiring to present themselves at any Ordinary Examination in Arts in any Term must give notice to the Senior Lecturer on or before the first day of the month in which the Term commences, unless the Examination commences on or after the last day of Arts Lectures in the Term, in which case notice must be given not later than the first day of the month in which the Lectures terminate.

Students who fail to give due notice may, with the permission of the Senior Lecturer, and provided always that the programme of the Examination is not interfered with, be allowed to present themselves for the Examination on payment of a fine of three

shillings.

Notice must be given on the form provided for the purpose.

A Student presenting himself for Examination is required by the Senior Lecturer to answer satisfactorily in each separate subject, or group of allied subjects, for which he is liable. A slight deficiency in one subject may, however, be counterbalanced by marked proficiency in others, provided the previous record of the Student does not indicate persistent neglect of the deficient subject. Special attention is paid to the mark in English Composition.

The name of a Student presenting himself at an Examination must be on the College books before the day of that Examination.

The Final Freshman Examination held at the end of Trinity Term lasts three days; all the other Term Examinations, including the Degree, last for two days. On the first day papers are set; on the second day the candidates are examined rivâ voce, and further papers may also be set. Term Examinations commence in the forenoon at half-past nine, and in the afternoon at two o'clock; on the rivâ voce days a Student must remain in the Examination Hall until all his vivâ voce Examinations are completed.

Students must wear academicals at all Arts Examinations other

than Entrance and Sizarship.

Students residing habitually at a distance from Dublin, and coming to Dublin to attend the Examinations of their Class, may put their names on Commons on the days on which these Examinations are held. They should communicate with the Clerk of the Buttery at or shortly after 12 o'clock on the day of the Examination.

A programme, giving the hours at which the different papers are set, is posted on the notice board at the Front Gate, a day or

two before the Examination.

A Student who in any Term obtains Honors in all the Subjects for which he would be liable, is entitled to claim credit for a Term by Examination, except in the case of the Final Freshman and Degree Examinations. A Student who obtains a Moderatorship is not required to compete at the ordinary Degree Examination.

#### 16. Keeping of Arts Terms by Lectures.

Students in order to obtain credit for a Term by attendance at Tutorial Lectures are required to attend five-sixths of the number of Lectures appointed for the Term; but the Senior Lecturer may on the recommendation of their Lecturer, and without reference to the Board, grant terms to Students who shall have attended not less than three-fourths of the whole.

When attendance on two different branches of one subject is required (e.g., French and Latin), the Student must attend at least five-sixths of the total number of Lectures, and must attend at least three-fourths of the number given by each Lecturer

severally.

Students seeking credit for a Term by Lectures must, at the commencement of such Term, register with the Clerk of the Books their places of residence for that Term, and during Term notify any change of residence. If this rule be not observed, credit for the Term cannot be allowed.

Students keeping the Term by Lectures can ascertain the hours at which they are to attend, as well as the names of their Lecturers,

from the notices posted at their Tutors' Rooms.

Students may obtain credit for their Terms in Modern Languages, by attending any official Term of Lectures in the subject, irrespective of Class. (Resolution of the Board, July 8, 1905.)

Terms may also be kept by attendance on Lectures in the Indian

and Home Civil Service School, which see.

No Lectures are given on days marked thus (†) in the Almanac.

The Lectures, both Ordinary and Honor, are, as a rule, chiefly devoted to the new business of the Term.

#### 7. Catechetical Terms.

The Catechetical Examinations are held on the day following the Term Examinations.

Catechetical Terms may be kept by Lectures, which commence at 9.30 a.m. in the Examination Hall on the days appointed in the Almanac, and are continued at the same hour on the succeeding Saturdays.

18. The Languages required during the Freshman years, in addition to Latin, are one of the following:—Greek, French, German.

By permission of the Senior Lecturer, a student may be allowed to present Italian, Spanish, or Russian, as a Modern Language at

any ordinary Examination.

The Examinations in French and German are partly viva voce in the prescribed books; and partly by papers containing passages (unprescribed) for translation from these languages, and passages for translation from English into the same.

Latin Composition forms a part of every Latin Examination. In the translation of selected passages from the Classical authors, separate weight will be allowed for the style of the

English Composition.

The books named under English Composition are intended to supply subjects for English Composition. A few questions will also be set on the substance of the books.

The letters p. or v. v., or p. & v. v., added in parentheses after a subject in the Freshman years, denote that the Examination in that subject is usually conducted by papers, or viva roce, or in both ways.

#### 19. Junior Freshman Year.

Throughout the Junior Freshman year, a Student without Privileges, keeping a Term by Examination, must answer in all the prescribed subjects; and keeping a Term by Lectures, must attend two Courses of Lectures, one Course in Science and one in Languages.

#### Subjects for Michaelmas Lectures and Hilary Examination.

MATHEMATICS, . . . Geometry: as in the Course for Entrance
with additional practical constructions; and the Course comprised in
Euclid, Book v., but proofs which
apply only to commensurable quantities will also be accepted, so that ratios
may be dealt with by the ordinary
processes of arithmetic. Students,
however, should be able to recognize
why such proofs are not immediately
applicable to incommensurables. A
more detailed syllabus can be obtained

on application (p. & v. v.).

Arithmetic. Algebra, the first Four
Rules, Fractions, Surds, Simple and

Quadratic Equations (p.).

#### Subjects for Michaelmas Lectures and Hilary Examination -continued.

LANGUAGES (p. & v. v.), . . Latin, Horace, Odes III., Iv., with

Latin Composition, and one of the
following:

Grack Younder Hellerice, Rk.;

Greek, Xenophon, Hellenica, Bk. i. French, Mérimée, Colomba. German, Lilieneron, Umzingelt (Oxford).

English Composition, . . Sir Walter Scott, Quentin Durward; or, Selections from Tennyson, Tiresias and other Poems (ed. Rowe and Webb) (p.).

#### Subjects for Hilary Lectures and Trinity Examination.

MATHEMATICS, . . . . Geometry, as before (p. & v. v.).

Arithmetic and Algebra, as before (p.).

Trigonometry, to the end of Solution of Plane Triangles (p.).

LANGUAGES (p. & v. v.), . . Latin, Virgil, Æneid, Bks. II. and VII., with Latin Composition, and one of the following:

Greek, Homer, Odyssey VI., IX.

French, About, Le Roi des Montagnes.
German, Dehmel, Das grüne Haus (Oxford).

English Composition, . . Sir Walter Scott, Marmion; or, De Quincey, English Mail Coach and Revolt of the Tartars (p.).

#### Subjects for Trinity Lectures and Michaelmas Examination.

MATHEMATICS, . . . Geometry as before (p. & v. v.).

Arithmetic and Algebra, as before (p.).

Trigonometry, with the use of Logarithms (p.).

LANGUAGES (p. & v.v.), . . Latin, Livy, Book xxi., with Latin
Composition, and one of the following:
Greek, Plato, Apologia Socratis.
French, Michelet, Jeanne d'Arc
(Hachette).
German, Die hundert besten Gedichte
(Gowans and Gray).

English Composition, . . Shakspere, Twelfth Night. Addison, Spectator Club Papers (in T. Arnold's Selections from the Spectator) (p.).

#### 20. Senior Freshman Year.

Throughout the Senior Freshman year, a Student without Privileges, keeping a Term by Examination, must answer in all the prescribed subjects; and keeping a Term by Lectures, must attend two Courses of Lectures—one Course in Science, and one in Languages.

Honor Lectures.—Students may substitute either the Honor Lectures in Mathematics or those in Logics, for the ordinary Science Lectures.

#### Subjects for Michaelmas Lectures and Hilary Examination.

Mathematics, . . . Geometry, as before, with the application of geometrical methods to incommensurable, as well as to commensurable magnitudes (v.v.). Arithmetic and Algebra, as before (p.).

Trigonometry, as before (p.).

Logic, . . . Abbott's Elements of Logic (p. & v. v.).

Languages (p. & v. v.), Latin, Sallust, Catiline, with Latin Composition, and one of the following:—

Greek, Herodotus, Book viii., to end of

chap. 99.
French, G. Sand, La Mare au Diable.
German, Lessing, Minna von Barnhelm.

ENGLISH COMPOSITION,

Macaulay, Essays on Hampden and Warren
Hastings. Goldsmith, The Good-natured
Man (p.).

#### Subjects for Hilary Lectures and Trinity Examination.

MATHEMATICS, . . . Geometry, as before (v. v.).

Arithmetic and Algebra, as before (p.).

Trigonometry, as before (p.).

LOGIC, . . . . As before (p. & v. v.).

MATHEMATICAL PHYSICS, Statics:—Composition and Resolution of

(a) Forces meeting in a point, (b) Parallel

Forces. Moments. Couples. Centre of

Parallel Forces and of Gravity. General

conditions of equilibrium of coplanar Forces.

Friction. Work. Simple Machines (p.

& v.v.).

Languages (p. & v.v.), Latin, Plautus, Trinummus, with Latin Composition, and one of the following:—

Greek, Euripides, Alcestis.

French, Berthon, Specimens of Modern French Verse.

German, Balladen und Romanzen, pp. 1-93 (Macmillan).

English Composition, George Eliot, Scenes of Clerical Life.

Macaulay, History of England, chap. iii.

# Subjects for Trinity Lectures and the Final Freshman Examination.

MATHEMATICS, . . . Geometry, as before (v. v.).

Arithmetic and Algebra, as before (p.).

Trigonometry, as before (p.).

Logic, . . . . As before (p. & v.v.).

MATHEMATICAL PHYSICS, Statics, as before.

Dynamics: - Velocity and Acceleration. Motion in a straight line. Mass, Force, and Weight. Connexion between Mass and Weight of the same body. Absolute Unit. Composition and Resolution of Velocities, Accelerations, and Forces. Motion of a particle on smooth and rough inclined planes. Equality of Action and Reaction. Atwood's Machine and other simple cases of rectilinear motion of two bodies connected by an inextensible string passing over a smooth pulley. Projectiles. Momentum and Impulse. Impact or Collision. Uniform circular Motion. Harmonic Motion. Pendulum and determination of g. Work, Energy, and Horse-power (p. & v. v.).

LANGUAGES (p. & v.v.), Latin, Virgil, Æneid, Books IV., VI., with Latin Composition, and one of the follow-

Greek, Homer, Iliad, Books XXII., XXIV.

French, Vigny, Cinq Mars, Part II. German, Freytag, Die Journalisten.

English Composition, Shakspere, Richard III. Thackeray, English Humourists (p.).

At each Final Freshman Examination those Students who obtain 40 per cent. and upwards, and whose answering in the several subjects is considered satisfactory by the Senior Lecturer, are distributed into three Classes, the names in each Class being arranged in the order of the percentages obtained. The minimum standards of Classes are:—First Class, 60 per cent.; Second Class, 50 per cent.; Third Class, 40. Of the remaining Candidates, those whose answering is considered by the Senior Lecturer to be sufficient are allowed the Examination, and their names are arranged in alphabetical order as Unclassed Candidates.

The Jellett Prizes for General Answering, value £5 and £3 respectively, are awarded on the result of this Examination

(see "Jellett Prizes").

The award of the Senior Exhibitions depends partly on the marks obtained at this Examination (see "Senior Exhibitions").

#### 21. Privileges of Students in the Freshman Years.

(a) Any Student who shall have obtained 30 per cent. in Mathematics, in English Composition, in Latin, and in Greek ar French or German, at the Junior Exhibition Examination, will be allowed in the two Freshman years to keep a Term by Lectures (on the written recommendation of the Lecturer) if he attends with diligence a course or courses of Honor Lectures, consisting of not less than five Lectures weekly; and if he obtains an Honor in any subject, he will be allowed credit for a Term by Examination, except for the Final Freshman Examination.

Such Students who desire to obtain credit for a Term by attendance at Classical Honor Lectures will be required to attend the Tutorial Honor Lectures and the Honor Lectures in Classical Composition.

- (b) A special Arts Course has been arranged for Medical and Dental Students. See "Arts Course of Medical and Dental Students."
- (c) Junior Class Engineering Students may substitute the Mathematical Lectures of the Engineering School for the Ordinary Science Lectures of the Junior Freshman or of the Senior Freshman Year.

## 22. Junior Sophister Year.

In the Junior Sophister Year the subjects for Lectures and Examinations are divided into Groups A, B, C, D, E; see § 25.

#### Keeping of Terms by Lectures.

A student without Professional Privileges obtains credit for a Term by attending courses of Lectures in two subjects which must be chosen from different groups.

The subjects on which Lectures are delivered each Term are

given in § 25.

Each of the five languages, Greek, Latin, French, German, Irish, is represented by one half-course of Lectures, and attendance on two half-courses is necessary to keep the Term in

Languages.

To obtain credit in Experimental Science, Junior Sophisters must attend the Lectures in Experimental Physics and those in Inorganic Chemistry, as well as Laboratory Instruction, for which last a fee of one guinea must be paid to the Junior Bursar for each Term.<sup>a</sup> The Term in Experimental Science cannot be kept by attendance on Lectures during Trinity Term.

<sup>•</sup> On December 5, 1903, the Board resolved that, for the future, Students in Arts may attend the Lectures in Chemistry without payment for the same, but shall pay a fed one gunea per Term for Laboratory Practice and Instruction, being liable, in addition, to pay for breakages; and that persons not on the College Books, if admitted by the Board, shall pay two and a half guineas per Term for Lectures and Laboratory Practice and Instruction.

In the Senior Sophister year a student cannot keep a Term by Lectures in Experimental or Natural Science unless he has, as a Junior Sophister, kept at least one Term in those subjects respectively. No such restriction, however, applies to Examinations.

To obtain credit in History, Junior Sophisters must attend the Lectures in Constitutional History and in Economic History, and

must pass an examination in the work of the Term.

The arrangements as to all Lectures in subjects by attendance on which Terms may be kept are posted on the Tutors' doors

some days before Lectures begin.

Honor Lectures in any subject may be substituted for the Pass Lectures in that subject, in any Term, with the permission of the Lecturer.

Honor Lectures.—Junior Sophisters who have obtained Honors in Classics may substitute the Lectures of the Professors of Greek and Latin for the Ordinary Lectures in Greek and Latin.

Science Honormen may substitute the Lectures of the Professors of Mathematics and Natural Philosophy for the ordinary Lectures

in any subject of Group A.

#### Keeping of Terms by Examination.

In order to get credit for any examination, a Junior Sophister must pass in English Composition and in three subjects, not more than two of which may belong to the same Group.

In the Sophister years the examination in every course except English Composition is usually conducted both by papers and

vivá voce.

Any two of the five languages, Greek, Latin, French, German,

Irish, count as one subject.

A Student selecting French or German will be required to write a translation from English into French or German, in addition to

answering in the books named in § 25.

Candidates for two Moderatorships who obtain Honors in the subjects of their Moderatorships in the same Term will be given credit for the Pass Examination of that Term, provided that a First Honor be obtained in at least one subject.

#### 23. Professional Privileges.

Junior Sophisters, not Divinity Students, who are keeping a Term in Arts by Lectures (or by the Examination at the commencement of the following Term), can obtain Professional Privileges by—

(a) Attending, during the Term, three-fourths of the Lectures of two of the Professors of Law, and passing the Examination held at the conclusion of those Lectures. Or,

(b) Attendance at three-fourths of the Professional Lectures of the Engineering School during the Term.

Or,

(c) Attendance, during the Term, as Candidates for Indian Civil Service, on two full Courses of the Special Lectures provided by the College for such Candidates.

Or.

(d) Attendance, during the Term, as Students in the "Army School," on certain prescribed Courses of instruction.

Or,

(e) Attendance, during the Term, on three-fourths of each of three Courses of Lectures in the School of Agriculture.

But no Professional Privileges are allowed for a second attendance on the same course of Professional Lectures.

## 24. Junior Sophisters having Professional Privileges.

Keeping of Terms by Lectures.

A Junior Sophister having Professional Privileges obtains credit for a Term by attending Lectures in any one of the subjects as arranged for each Term; see § 25.

#### Keeping of Terms by Examination.

A Junior Sophister having Professional Privileges obtains credit for a Term Examination by passing in English Composition, and in two subjects taken from different Groups; but an Engineering student must not take Experimental Science at the Trinity or Michaelmas Examination, and may take at the same examinations two subjects which belong to the same Group.

For the Arts Course of Medical and Dental Students, see under

that heading.

# 25. Subjects for Lectures and Examinations in the Junior Sophister Year.

#### Subjects for Michaelmas Lectures.

A. MATHEMATICAL PHYSICS.

B. LANGUAGES:—GREEK, LATIN, FRENCH, GERMAN, IRISH. (Two languages to count as one subject.)

C. Logic.

D. EXPERIMENTAL SCIENCE. NATURAL SCIENCE.

E. HISTORY.

#### Subjects for Hilary Examination.

Mechanics: -as read in Senior Freshman

Hydrostatics:-Pressure at a point in a fluid. Resultant pressure over an area. Archimedes' Principle. Methods for determining specific gravity. Relation between the volume, pressure, and temperature of a gas. Weight of a given A. MATHEMATICAL PHYSICS, \ volume of a gas at a given temperature and pressure. Barometers. Divingbell. Water Pumps. Air Pumps. The

Siphon. Pressure Gauges. Balloons. Optics: — Galbraith and Haughton's Manual.

B. LANGUAGES (two languages to count as one subject).

Thucydides, Bk. vii. GREEK, LATIN, Tacitus, Agricola.

Daudet, Contes du Lundi. FRENCH. :

GERMAN, . Robertson, The Literature of Germany, pp. 73-143 (Home University Library);

and Goethe, Hermann und Dorothea. Oranmuro 7 Spainne, ed. O'Duffy (Society for Preservation of the Irish

Language).

C. Logic-Mill's Logic, Book II. and Book III., chaps. i to v.

D. EXPERIMENTAL SCIENCE (detailed syllabus given below). NATURAL SCIENCE—Botany and Zoology—(detailed syllabus given below).

E. HISTORY-Robinson's History of Western Europe (Ginn & Co.), chaps, i to xxii, inclusive.

ENGLISH COMPOSITION, . L. Stephen: Johnson (English Men of Letters Series). Bagehot: English Constitution (Introduction, and chapters 2, 3, 4, 6).

#### Subjects for Hilary Lectures.

A. ASTRONOMY.

B. LANGUAGES: -Greek, Latin, French, German, Irish. Languages to count as one subject.)

C. Logic.

D. EXPERIMENTAL SCIENCE. NATURAL SCIENCE.

E. HISTORY.

#### Subjects for Trinity Examination.

Mechanics, Hydrostatics, and Optics, as A. MATHEMATICAL PHYSICS. before.

Parker's Astronomy (Longmans, Green, & Co.), chaps. i, ii, v, vi, vii, viii ASTRONOMY, . (omitting § 101), ix (to § 116 incl.), xi, and xii.

B. LANGUAGES (two languages count as one subject).

Demosthenes, Olynthiacs I., III., III., GREEK, . . . .

and Philippic i.

Juvenal, Sat. iii, iv, vii, viii, xiv. LATIN. Balzac, Eugénie Grandet (in Oxford FRENCH. . .

Higher French Series). Schiller: Wilhelm Tell.

Cacena Comnoceáin, ed. Bergin and Mac Neill.

C. Logic-Mill's Logic, Book III., chaps. i-v, vii-xiii, and xx.

Bacon's Novum Organum, Book I., Preface and Aphorisms, 1-69, 129, and 130,

D. EXPERIMENTAL SCIENCE (detailed syllabus given below).

NATURAL SCIENCE-Botany and Zoology (detailed syllabus given below).

E. HISTORY-Robinson's History of Western Europe, chaps. xxiii to end of volume.

J. Morley: Walpole. ENGLISH COMPOSITION.

Bacon's Essays, the following selection :- Truth ; Death ; Revenge ; Adversity; Goodness, and Goodness of Nature; Atheism; Superstition; Travel; Counsel; Innovations; Friendship; Discourse; Riches; Nature in Men; Custom and Education; Youth and Age; Studies.

#### Subjects for Trinity Lectures.

A. ASTRONOMY (partly of a physical nature).

B. LANGUAGES: -Greek, Latin, French, German, Irish. Languages to count as one subject.)

C. PSYCHOLOGY.

D. EXPERIMENTAL SCIENCE. NATURAL SCIENCE.

E. HISTORY.

EDUCATION.

#### Subjects for Michaelmas Examination.

A. MATHEMATICAL PHYSICS. As before. As before, and Parker's Astronomy, ASTRONOMY. . . chaps. iv and x, and Young's Manual of Astronomy, chaps. ii, vii, viii, ix, and xvi-xx.

B. LANGUAGES (two languages count as one subject).

GREEK, . Æschylus, Prometheus Vinctus.

Horace, Satires. LATIN, . .

FRENCH, . R. Bazin, La Terre qui meurt. GERMAN, . Goethe, Iphigenie auf Tauris.

IRISH, . . P. O'Leary, Séaona.

#### Light:

Light propagated in right lines, rays; pin optics.

Laws of reflection and refraction.

Measurement of angle between two reflecting surfaces.

Measurement of refractive index.

Mirrors and lenses, measurement of focal lengths.

Dispersion, spectrum analysis and selective absorption.

Photometry.

#### CHEMISTRY.

'The Examinations are confined to the leading facts and principles of the Science. Candidates are expected to be familiar with the methods used in the deduction of formulæ, and with the solution of such chemical problems as are referred to in the Course.

#### HILARY EXAMINATION.

Inorganic Chemistry:—the non-metals, hydrogen, oxygen, nitrogen, and the halogens, and the chief compounds which these elements form with each other. Elementary Chemical Theory.

Practical.—Preparation and identification of the gaseous and other

substances included in the above Course.

#### TRINITY EXAMINATION.

Carbon, silicon, sulphur, boron, phosphorus, and their chief compounds.

Practical.—As before, but including all non-metals, with systematic analysis for single acid radicles.

#### MICHAELMAS EXAMINATION.

The commonly occurring metals, and their more important compounds.

Practical .-- Qualitative examination for a single metal.

## 27. Syllabus of Course in Natural Science.

Students are required to have a practical, as well as a theoretical, knowledge of the subjects of Examination.

#### HILARY EXAMINATION :-

ZOOLOGY, (1) . Beddard's Elementary Practical Zoology, chaps. i. and ii.

BOTANY, (2) . The structure (so far as may be made out by means of a simple lens) and arrangement of the vegetative and reproductive organs of Seed-Plants, as illustrated by the following types: the Wallflower (Cheiranthus Cheiri), the Lily (Lilium candidum), and the Fir (Picea excelsa).

Scott's Introduction to Structural Botany, Pt. 1., pp. 1-26, 136-152, and 233-238.

(2) Students are recommended to apply to the Professor of Botany for material illustrating the Course, as a practical acquaintance with the plants mentioned in the above

Syllabus is indispensable.

<sup>(1)</sup> Students are recommended to study in the Zoological Museum, as they are liable to be examined practically in such specimens as do not require the microscope for their recognition.

#### TRINITY EXAMINATION :-

ZOOLOGY, (1)
BOTANY, (2)

. As before; with Beddard, chaps. iv., v., and vi.

Outlines of the Physiology of Nutrition. The essential chemical constitution of Plants. The Nutrition of Green Plants. Relation to Light.

Movement of materials in Plants. Respiration.

Scott: Pt. I., chap. iii.

#### MICHAELMAS EXAMINATION :-

ZOOLOGY, (1) . As before; with Beddard, chaps. viii. and x.,

omitting the pages on Skulls.

BOTANY, (2) . The arrangement of Tissues in Seed-Plants, as illustrated by the Wallflower, Lily, and Fir. The microscopic appearance and minute structure of tissues. The minute structure of the cells and modifications of cells found in these types. The nature of Protoplasm. The microscopic appearance of Pollen-grains, their growth and life-history. The minute structure of Ovules, Pollination, Fertilization, Production of Seeds.

Scott: Pt. 1., pp. 26-141, 152-199, and 238-283.

## 28 Senior Sophister Year.

In the Senior Sophister year the subjects are divided, as in the Junior Sophister year, into Groups A, B, C, D, E. See § 31.

#### Keeping of Hilary or Trinity Term by Lectures.

In the Senior Sophister year a Student obtains credit for a Term by attending Courses of Lectures in two subjects which must be chosen from different Groups.

To obtain credit in Political and Economic Science, Senior Sophisters must attend the Lectures in Political Science and in Economics.

In Experimental Science, Laboratory attendance is necessary, as in the Junior Sophister year, and the arrangements as to Chemistry

Fees are the same also.

No Senior Sophister can obtain credit for attendance on Lectures in Experimental Science who has not obtained credit for a Junior Sophister Term in the same subject; and no Senior Sophister can obtain credit for attendance on Lectures in Geology who has not, as a Junior Sophister, obtained credit for Botany and Zoology. To keep the Term in Experimental or Natural Science requires attendance during three days per week only.

<sup>(!)</sup> Students are recommended to study in the Zoological Museum, as they are liable to examined practically in such specimens as do not require the microscope for their recognition.

<sup>(2)</sup> Students are recommended to apply to the Professor of Botany for material illustrating the Course, as a practical acquamtance with the plants mentioned in the above Syllabus is indispensable.

U. Psychology—Höffding's Outlines of Psychology, chaps. i-iv, and Sections A and B of chap. v.

D. Experimental Science (detailed syllabus given below).

NATURAL SCIENCE—Botany and Zoology (detailed syllabus given below).

E. HISTORY—Green's Short History of the English People, from the Norman Conquest.

EDUCATION—Monroe, Text-book in the History of Education, chaps. i, iii, iv. Culverwell, The Montessori Principles and Practice.

Drummond, The Child.

English Composition, . . Creighton: Queen Elizabeth. Dickens:
A Tale of Two Cities.

#### 26. Syllabus of the Experimental Science Course.

The Course in Experimental Science consists of two Sub-Courses, Experimental Physics and Chemistry, in each of which Candidates are required to answer, and which are as follows:—

#### EXPERIMENTAL PHYSICS.

Candidates must understand the theory of, and know how to use, the instruments mentioned. They must understand the principles involved in the measurements and experiments, and be able to make calculations founded on them. Courses are provided in the Physical Laboratory for Students requiring practical instruction in Physical Measurements. They are desired to pay special attention to the principle of the Conservation of Energy, as illustrated in the various branches of Experimental Physics.

#### HILARY EXAMINATION.

#### General Properties of Matter:

Measurement of space (length, area, volume), time and mass (vernier, micrometer screw, pendulum, balance).

Characteristics of solids, liquids, and gasez (compression, and shearing strains and stresses).

Measurement of pressure (mercurial and aneroid barometer, liquid manometer).

Measurement of density (specific gravity bottle, hydrostatic balance, hydrometers of variable immersion).

Measurement of compressibility of gases (Boyle's tube).

#### Heat:

Measurement of temperature (construction of mercurial thermometers, centigrade and Fahrenheit scales, maximum and minimum thermometers).

Measurement of coefficients of expansion for temperature of so'ids, liquids, and gases (Roy and Ramsden's method for so'ids; Dulong's method, and apparent expansion in glass for liquids; air thermometer method for gases).

Maximum density of water (Hope's experiment).

Applications of expansion of solids (metallic thermometers, compensated pendulums, &c.).

Measurement of density of a gas (Regnauit's experiments).

Measurement of quantities of heat.

Measurement of specific heats of solids (water calorimeters, Dulong and Petit's law).

Laws of fusion and evaporation (boiling, effect of presence of other gases, distilling). Measurements of latent heats of fusion and evaporation (water

calorimeter, Black's ice calorimeter).

Freezing mixtures, cooling by evaporation.

Measurement of mechanical equivalent of heat (Joule's experiment).

#### TRINITY EXAMINATION.

As before, and in addition :-

#### Electricity:

Laws of magnetic force (torsion balance).

Laws of magnetic induction (magnets and magnetic substances).

Terrestrial magnetism (declination, dip).

Lines of force due to magnets and electric currents.

Laws of magnetic force due to electric currents (tangent galvanometers, electro-magnets, electric bell).

Ohm's law.

Measurement of resistances and specific resistance (Metre Bridge, Post Office Box)

Measurement of electromotive forces (high resistance galvano-

Laws of electrolysis (gas and copper voltameters, electroplating, lead batteries).

Electromotive force due to chemical action (zinc copper and dilute sulphuric acid, amalgamation).

Polarization of cells (bichromate, Daniell's, Grove's and Bunsen's and Le Clanché cells).

Peltier's thermo-electric effect (thermopile).

#### MICHAELMAS EXAMINATION.

As before, and in addition :-

#### Sound:

Simple vibration. Loudness, pitch, and tone.

Measurement of frequency.

Methods of maintaining vibrations, resonance. Vibrations of bodies, loops and nodes, laws of vibration of stretched strings.

Transverse and longitudinal displacements, organ-pipes.

Wave motion, measurement of wave-length and velocity of propagation.

Musical intervals.

Keeping of Hilary or Trinity Term by Examination, and passing of the Degree Examination.

Divinity Students having Professional Privileges may obtain credit for a Senior Sophister Term Examination, or for the Degree Examination, by passing in English Composition and in three

subjects, one of which must be Classics.

In order to get credit for a Senior Sophister Term Examination, or for the Degree Examination, other students who have Professional Privileges must pass in English Composition and in three subjects (Experimental Science being excluded as a subject in the case of Engineering students).

# 31. Subjects for Lectures and Examinations in the Senior Sophister Year.

Subjects for Michaelmas, Hilary, and Trinity Lectures.

A. MATHEMATICAL PHYSICS. ASTRONOMY.

[These Lectures can be taken only by students who have not taken them as Junior Sophisters.]

- B. Languages:—Greek, Latin, French, German, Irish. (Two languages to count as one subject.)
- C. Psychology, or Ethics.

D. Experimental Science. Natural Science.

E. Economics and Political Science. Education.

Subjects for Hilary Examination.

A. Mathematical Physics, Mechanics, Hydrostatics, and Optics, as in Junior Sophister year.

ASTRONOMY, . . . As before.

B. Languages (any two of Greek—Aristotle, Nicomachean Ethics, the following five).

Book II.

Latin—Cicero, de Officiis, Book III.

French—Taine, Voyage aux Pyrénées.

German—Schiller, Wallenstein's Lager
and Die Piccolomini.

Irish—Oiöe Cloinne Tuipeann (Society for Preservation of the Irish Language.)

- C. Psycнology, . . . . Höffding's Outlines of Psychology, chaps. iv, vi, and vii.
- D. EXPERIMENTAL SCIENCE, As in Course given below.
  NATURAL SCIENCE, . . As in Course given below.
- E. POLITICAL AND ECONOMIC
  SCIENCE, . . . . Ilbert's Parliament; J. S. Nicholson's
  Elements of Political Economy, Intro
  - duction, Book i., Book ii.

    EDUCATION, . Monroe, Text-book in the History of Education, chaps. v, vi.

Bagley, The Educative Process. Dewey, The School and Child.

ENGLISH COMPOSITION, Benjamin Franklin: Autobiography. Crabbe: The Borough.

#### Subjects for Trinity Examination.

A.	MATHEMATICAL	PHYSI	ics,	As	before.
	ASTRONOMY, .			As	before.

B. LANGUAGES (any two of Greek-Plutarch's Life of Pericles. the following five), Latin-Virgil, Georgics, 1. IV.

French—Sandeau, Mademoiselle de la Seiglière. Labiche et Martin, Le Voyage de M. Perrichon (ed. Wells, pub. Harrap). German—Schiller, Wallenstein's Tod.

German—Schiller, Wallenstein's Tod.

Irish—Bergin, Stories from Keating's
History of Ireland.

C. Ethics, . . . . Plato's Republic, Book iv (English translation).

Aristotle's Nicomachean Ethics, Books i and ii (English translation). Rogers's Short History of Ethics, Intro-

duction and Part i.).

I). Experimental Science, As in Course given below. Natural Science, As in Course given below.

E. POLITICAL AND ECONOMIC SCIENCE, . . . .

EDUCATION,

CIENCE, . . . J. S. Mill's Representative Government (omitting chapters 8-12, inclusive).

J. S. Nicholson's Elements of Political

Economy, Book iii., Book iv., Book v. Monroe, Text-book in the History of Education, chaps. vii, viii, ix, and x.

Adams, Herbartian Psychology.

Welton, Logical Bases of Education.

English Composition, Carlyle: Heroes (Lectures 3, 5, and 6).

More: Utopia (English Translation).

#### Subjects for the Degree Examination.

A. MATHEMATICAL Physics, . As before. Astronomy, . . . . As before.

B. Languages (any two of the Greek—Plato, De Republica, Book iii. Latin—Horace, Epistles, including the Art of Poetry.

French-V. Hugo, Légende des Siècles (selection in Oxford Higher French Series).

French Series). German—Faust, Erster Teil.

Irish—Oroe Cloume Urpunt and Oroe Cloume Up (Society for the Preservation of the Irish Language).

C. Psychology, . . . . Höffding's Outlines of Psychology, chaps. i, ii, iii, iv, sections A and B of chap. v, and chaps. vi, vii.

Honor Lectures.—Senior Sophisters who have obtained Honors in Mathematics may substitute the Lectures of the Professors of Mathematics and of Natural Philosophy for the Ordinary Lectures in any one subject. Those who have obtained Honors in Classics may substitute Professorial Lectures for Classical Ordinary Lectures.

Senior Sophisters may be allowed to keep a Term by attendance, to the satisfaction of the Lecturers, at the Lectures in any two Moderatorship Courses, to be approved by the Senior Lecturer,

subject to an appeal to the Board.

Keeping Senior Sophister Terms by Examination, and passing the Degree Examination.

In order to get credit for the Hilary or Trinity Term Examination, or for the Degree Examination, a Senior Sophister must

pass in English Composition, and in four other subjects.

At each Degree Examination, those Students who obtain 45 per cent. and upwards, and whose answering in the several subjects is considered satisfactory by the Senior Lecturer, are distributed into three Classes, the names in each Class being arranged in the order of the percentages obtained. The minimum standards for Classes are:—First Class, 65 per cent.; Second Class, 55 per cent.; Third Class, 45 per cent.

Of the remaining Candidates, those whose answering is considered by the Senior Lecturer to be sufficient are allowed the Examination, and their names are arranged in alphabetical order

as Unclassed Candidates.

Candidates placed in the First Class who have passed in the full course for the Degree Examination without claiming Professional Privileges are called Respondents, and are entitled to receive honorary Testimoniums, which are publicly presented to them by the Chancellor or Vice-Chancellor, at the Commencements at which they are admitted to their Degrees, and their names are permanently recorded in the Calendar immediately after those of the Moderators.

Medical and Dental Students who claim Professional Privileges at the Degree Examination are classed according to the marks which they obtain in the Arts and in the Professional portions

of this Examination, taken together.

The Degree can also be obtained on the result of the Moderator-

ship Examination: see § 34.

A Candidate whose name is on the books of the College, and who has passed the Degree Examination, can present himself at any Commencements, in order that the Degree may be conferred upon him, provided that he shall have paid the Degree Fee of two pounds to the Junior Bursar on the day before the Commencements at latest. If his name be not on the Books, he must also pay the Replacement Fee of fifteen shillings to the Junior Bursar.

## 29 Professional Privileges in the Senior Sophister Year.

At the Hilary and Trinity Examinations, Divinity Students obtain Professional Privileges if they have credit for full attendance on the Lectures of Archbishop King's Professor, or the Regius Professor, and one of the Assistants, during the Term preceding the Examination at which they present themselves; but at the Degree Examination they obtain Professional Privileges only if they have credit for a similar professional attendance for the entire year (i. e. the three Terms) either preceding the Degree Examination of their Class, or preceding the Degree

Examination at which they present themselves.

At the Michaelmas and Hilary Lectures, and the Hilary and Trinity Examinations, Law, Engineering, Indian Civil Service, and Agricultural Students who fulfil the conditions in (a), (b), (c), or (d), of § 23, obtain Professional Privileges; but at the Degree Examination they obtain Professional Privileges only if they have credit for Professional attendance as specified in (a), (b), (c), or (d), § 23, for the entire year (i.e. the three Terms) either preceding the December Degree Examination of their Class, or preceding the Degree Examination at which they present themselves; provided that, in the case of Law Students, they have also credit for the General Examination held in Trinity Term.

The Arts Course of Medical and Dental Students is given under

that heading.

An Engineering Student who has passed his Engineering Degree Examination is granted Professional Privileges in his Senior Sophister year, and at his Degree Examination.

## 30 Senior Sophisters having Professional Privileges.

Keeping of Hilary or Trinity Term by Lectures.

In order to get credit for a Term of Lectures, a Divinity Student must attend Courses in two subjects from different Groups; one of these subjects must be either Greek and Latin, or Greek and Hebrew. Or he may substitute for Classical Lectures an Examination at the conclusion of the Lectures. The ordinary Lectures in Greek are on Mondays, Wednesdays, and Fridays, and in Latin on Tuesdays, Thursdays, and Saturdays in the Senior Sophister year. The Hebrew Lectures are on Tuesdays and Thursdays.

1. In order to get credit for a Term of Lectures, any other Student who has Professional Privileges shall attend a Course of Lectures in any one subject (except in the case of Law Students, Political and Economic Science, and in the case of Engineering

Students, Experimental Science).

<sup>\*</sup> That is at the Michaelmas, Hilary, and Trinity Terms of their Senior Sophister Year.

or Ethics, . As before, and Rogers's Short History of Ethies, Part II. Butler's Sermons i, ii, and iii, with Preface and Dissertation on Virtue. MacKenzie's Manual of Ethics, Books i and ii. D. EXPERIMENTAL SCIENCE, . As in Course given below. NATURAL SCIENCE. . . As in Course given below. E. POLITICAL AND ECONOMIC Science, . . . . . The Courses appointed for Hilary and Trinity Examinations, together with S. Low's Governance of England. Monroe, Text-book in the History of Education, . . Education, chaps. xi to end. Education - Intellectual. Spencer's Moral, and Physical. Newman's Idea of a University Defined, Discourses v, vi, vii, in Part I, and in Part II, Discourses i, ii, and iii (omitting  $\delta \delta$  1, 2), and iv (omitting Culverwell, as before, omitting chap. vii. Bagley, as before, chaps. i-xv. Adams, as before, omitting chaps, iv, vii, viii, and ix. ENGLISH COMPOSITION. Shakspere: Julius Caesar. Seeley: Expansion of England.

## 32. Syllabus of Course in Experimental Science.

EXPERIMENTAL PHYSICS.

(HILARY EXAMINATION.)

As before in Junior Sophister year, and in addition :---

General Properties of Matter:

Molecular theory of structure of solids, liquids, and gases (diffusion). Measurement of elasticity of solids (stretching, torsion).

Calculation of work done by elastic forces.

Heat:

Measurement of relation of temperature and pressure of saturated vapours (manometer tube method).

Hygrometry (hygrometers, chemical, dew-point, wet and dry bulb). Specific heat of a liquid (method of mixtures, cooling method).

Convection of heat (hot air and hot water warming apparatus).

Measurement of conductivity for bad conductors (cooling of jacketed

hot water tin).

Conductivity and diffusivity of good conductors (Ingenhaus' experiment by melting wax).

Laws of Radiation (null method with thermopile).

Equality of radiating and absorbing powers. Selective absorption of transparent bodies.

General principle of steam-engine (furnace, boiler, cylinder, condenser, piston, crank, eccentric, slide valve).

#### (TRINITY EXAMINATION.)

As before and in addition :-

#### Electricity :

Molecular nature of magnetism (broken magnets).

Comparison of moments of magnets (deflection method).

Measurement of pressure by potentiometer.

Internal resistance of cell, arrangement of cells.

Moving coil galvanometers.

Laws of electro-magnetic induction (Faraday's experiment, Arago's disc, Lenz's law, law of induced electro-motive force).

Machines transforming mechanical into electro-magnetic energy

(Clarke's magneto, Gramme dynamo).

Machines transforming electro-magnetic into mechanical energy (dynamo used as motor, Morse telegraph, telephone and microphone).

Machine altering electro-magnetic energy (Ruhmkorff's coil).

Measurement of heat due to electric current (glow and arc lamps).

#### Electrostatics :

Laws of electric action (Coulomb's balance).

Distribution on conductor (proof plane, hollow conductor).

Induction (ice-pail experiment, Leyden jar).

Electroscopes.

Electric discharges (points, lightning conductors).

Cylinder and plate machines, electrophorus, induction machines.

Capacity of a conductor, comparison of two capacities.

#### (DEGREE EXAMINATION.)

As before.

CHEMISTRY.

#### (HILARY EXAMINATION.)

The paraffins and their chief derivatives.

Practical.—Analysis of simple soluble and insoluble salts.

#### (TRINITY EXAMINATION.)

The olefines and their chief derivatives. Urea. Fats; saponification and hydrolysis. Sugars, starch, cellulose.

Practical.—As before, with identification of common organic acids.

#### (DEGREE EXAMINATION.)

Acetylene, benzene, and its more important derivatives. Pyridine, and its derivatives; the alkaloids.

Practical.—As before, with identification of the commoner alkaloids.

#### 33. Syllabus of Course in Natural Science.

TT	22	
HILARY	EXAMINATION.	

ZOOLOGY (1)				All the work of the Junior Sophister
				Year, with Beddard, chaps. iii.
				and vii.
BOTANY, $(2)$				The Structure and Life-history of Ferns
				as illustrated by the Male Fern (Aspi-
				dium Filix-mas).
				The Structure and Life-history of a
				Moss, e.g. Funaria hygrometrica.
				Scott: Pt. 11., pp. 37-77, and 126-145.
Geology, (3)				Watts' Geology for Beginners, chaps. i.

## TRINITY EXAMINATION.

, ( )	•	•	•	•		•	that part of chap, x. relating to skulls.
BOTANY, (2)	٠				•		The structure, life-history, and mode of
							nutrition of Fungi, as illustrated by
							the Mushroom (Agaricus campestris),
							and the seedling-blight (Pythium
							Baryanum).

Scott: Pt. II., pp. 216-228, 266-271. GEOLOGY, (3) Watts, chaps. xvi.-xxi. inclusive; or the Lectures of the Professor of Geology in Hilary Term.

#### DEGREE EXAMINATION.

		xiii., xiv.
BOTANY, (2) .	 	All the work of the Junior and Senior
		Sophister Years. The external
		characteristics, microscopic structure,
		&c., modes of nutrition and repro-
		duction of Algæ, as illustrated by
		Pelvetia canaliculata and Spirogyra
		longata. The chief characteristics of
		the great subdivisions of the Vegetable
		Kingdom.

Scott: Part ii., pp. 168-174, 189-201, and 290-306.

As before, with Beddard, chaps. xii.,

to ix. inclusive, and xii.; or, the course lectured on by the Professor of Geology in Michaelmas Term.

As hafara with Raddard abon iv and

GEOLOGY, (3) Watts' Geology for Beginners. Parts specified for both Hilary and Trinity Examinations.

(2) Students are recommended to apply to the Professor of Botany for material illustrating the Course, as a practical acquaintance with the plants mentioned in the above Syllabus is indispensable.

ZOOTOGY (1)

Zoology, (1).

<sup>(1)</sup> Students are recommended to study in the Zoological Museum, as they are liable to be examined practically in such specimens as do not require the microscope for their recognition.

<sup>(3)</sup> The Professor of Geology will, on application from the Student, give access to specimens illustrating the Course.

#### 34. Honors and Prizes.

A number of Studentships, Scholarships, Exhibitions, Prizes, Honors, and Sizarships, are awarded each year to deserving Students, both in the Arts Course and in the Professional Schools. A summary of these is given further on; see "Summary."

It is a condition precedent to the award of every Prize that

sufficient merit must be shown.

Some of the Honors and Prizes specially connected with the regular Undergraduate Course are enumerated below. For further particulars concerning these and the other Prizes, see 'Honor Courses,' 'Scholarships,' 'Moderatorships,' and 'Special Prizes.

#### For Prizes obtainable in connexion with Entrance, see § 4. Prizes obtainable at Lectures.

In the Freshman years two premiums of the value of £1 10s. in books are awarded, one in each class, each Term, for proficiency in Classical Composition, on the recommendation of the Lecturer, to students who have attended not less than five-sixths of the Honor Lectures in Classics and in Classical Composition. No student can obtain more than one prize in any one academic year. Similar prizes are similarly awarded to students in French and to students in German.

The Professor of English Literature is authorized to recommend for two Prizes of the value of £1 10s, each in books, in Composition, the best Candidates among the Students attending his Class during the Term, one for Freshman Students and the other for Sophisters.

#### Catechetical Premiums.

Catechetical Premiums of the value of £2 in books are awarded in accordance with the conditions given under 'Catechetical Course.'

#### Term Honor and Prize Examinations.

In each Term, Examinations are held, at which Honors of the First and Second Rank are awarded to Candidates who exhibit sufficient merit. In Michaelmas Term, Prizes to the value of £4 and £2 are awarded to the Candidates who obtain First and Second Honors respectively.3 The successful Candidates

\* The following Order of the Board with regard to the duties of the University Book-sellers in Dublin, was made on May 20, 1843:

"It is ordered by the Board that the Students who obtain College Premiums may

"This notice is to be printed and put in two conspicuous piaces in the Booksellers'

Shop."

direct the College Booksellers to procure for them any suitable books as Premiums which continue to be offered for sale in the priced catalogues of London, Dublin, cr Edmburgn, and at the prices marked in the said catalogues; and when the seiling price of a book is recognised by the Trade as having fallen below the publication price, the College Bookseiters are to supply the book at such recognised reduced price.

can select Books, to the value of their Prizes, at the University Booksellers, and can have the College arms stamped on the covers of bound Books; in the case of Prizes in Experimental or Natural Science. Scientific Instruments, with an inscription thereon, may be substituted for books, if approved by the Senior Lecturer on the report of the Professor; or the successful Candidates may, on the recommendation of their Tutors to the Bursar, apply the amounts gained to the payment of their College Fees or Incidentals then due.a

The marks at certain of these Examinations count towards the

Senior Exhibitions (see under 'Senior Exhibitions').

#### Subjects of Honor and Prize Examinations.

Mathematics.

Classics.

- Mental and Moral (e) Philosophy.
- Experimental Science. Natural Science.
- History and Political Science.
- English Literature.
- French.
- Legal and Political Science.
  - Old and Middle Irish.

No Student who has dropped a Class will be allowed to present himself, as a Candidate for Honors, at any Examination, in a subject in which he has previously obtained Honors at the corresponding Examination of the Class from which he has dropped.

All students desiring to compete at any Honor or Prize Examination in any Term are required to give notice to the Senior Lecturer, at least one fortnight before the last day of Lectures in n the preceding Term, of the particular Examinations at which

they intend to present themselves.

The dates of Honor and Prize Examinations in any Term are not given in the Almanac, but, after the required notices have been received, a programme is published before the end of the preceding Term.

#### Moderatorship and Medal Examination.

A Student who desires to graduate in Honors at the Degree may substitute one of the Moderatorship Examinations for the ordinary Degree Examination. Moderatorships are granted in groups of the subjects of the Honor Courses, and in Engineering Science.

a Resolution adopted by the Board, May 14th, 1904:-

a Resolution adopted by the Board, May 14th, 1994:—
RESOLVED—"That within a forthight after the returns of the Prizes or Premiums awarded at the Term Lectures or Term Examinations shall have been sent in to the Senior Lecturer or Catechist, any Student desirous of having his Prize or Premium utilised in the part payment of his Fees to College, shall send in his name to the Clerk of the Buttery, with the necessary authorization from his Tutor; and the Clerk of the Bottery shall send a list of these Students, with the money value of the Prize or Premium awarded to each, to the Bursar, and shall not send their names in the list of prizemen's sent to Messrs. Hodges & Figgis.

"That after a Student's name has been sent to the College Booksellers, in the list of those to whom Prizes or Premiums in books have been awarded, he shall not be permitted to utilise his Prize or Premium in the payment of Fees."

Of the successful Candidates in the several departments, there

are two ranks, called Senior and Junior Moderators.

The Senior Moderators receive gold medals, and the Junior Moderators silver medals; which are given to them publicly before the University, by the Chancellor or Vice-Chancellor, at the Commencements at which they are admitted to their Degrees. The first Senior Moderator in each department receives a large gold medal, if recommended by the Examiners and their recommendation be approved by the Board.

Prizes are also awarded to the Moderators in order of merit.

A Student who has dropped a Class after the Michaelmas Examination of the Junior Sophister year, or who has dropped more than one Class, will be allowed to compete at any of the Moderatorship Examinations, but, if successful, he will not be given a medal, nor will he be placed in order of merit amongst the Moderators, but will be added to the list as a Supplemental Moderator, Senior or Junior; and he will not be entitled to the Exhibition of £10, awarded to Scholars who become Senior Moderators (see under "Exhibitions awarded to Scholars").

A Student who would not be entitled to present himself at the ordinary Degree Examination until January, will not be permitted to compete for a Moderatorship unless he previously obtains the special permission of the Board.

A Student who fails in obtaining a Moderatorship may nevertheless be allowed the Degree on his answering at the Moderatorship Examination, provided a special recommendation to that effect be made by the Court of Examiners, and his name may then be placed at the foot of such class as the Senior Lecturer may determine.

No Student will be allowed to be a Candidate at the Moderatorship Examination unless his Fees for the current half-year shall have been paid before the first day of Examination.

All Candidates for Moderatorship are required to give notice to the Senior Lecturer of their intention to compete, stating the Courses in which they desire to present themselves, and the Special Subjects (if any) which they are taking. This notice must be given on or before June 15th of the year in which they intend to compete.

The dates of each Moderatorship Examination are not published in the Almanac. The Senior Lecturer, after receiving the information required on or before June 15th, arranges the dates and periods of each Moderatorship Examination, and publishes them before the end of Trinity Term.

In arranging the time table for Moderatorship Examinations, care is taken to afford equal opportunities to candidates for Studentships.

It is the duty of the Courts of Examiners for the several Moderatorships to secure that in the case of alternative papers an approximately uniform standard shall be maintained.

A Student who has passed for his Degree, either at the ordinary Examination, or at a Moderatorship Examination at which he has failed to obtain a Moderatorship, will be allowed to compete for a Supplemental Moderatorship within two years. An extension of that period can be granted only by special permission of the Board.

A Graduate who has obtained a Moderatorship at his Degree shall be allowed to compete for a Supplemental Moderatorship in another subject in either of the two following years, he replacing his name for the Examination and paying the current half-yearly fee.

# Catechetical Course.

Provision has been made for the religious instruction of Students. Catechetical Lectures commence on the days specified in the University Almanac, at half-past nine o'clock, and are continued on Saturdays during Term at the same hour, for the two Freshman Classes only. Catechetical Examinations are held at the beginning of each Term (immediately after the Term Examinations) for the benefit of those Students who have not been resident during the preceding Term.

#### Rules relating to Catechetical Terms and Examinations.

To get full credit for Catechetical Terms, with certificates of the same, four Terms are to be saved in the Freshman years, either by Lectures or by Examinations. Omitted Terms may be supplementalized in the Sophister years for special reasons to be approved of by the Catechist. In such cases credit for two Terms within the same College Term will only be given if one of the two is kept by Lectures and the other by Examination.

Parents and guardians who desire that students under their charge shall attend Catechetical Lectures or Examinations should notify the Catechist, who will inform them as to what lectures or examinations

are attended.

To a Student who exhibits peculiar merit, either at Lectures or at an Examination, a Premium in books of the value of £2 is awarded, unless such a Premium has been previously obtained in the same year, in which case a Certificate is awarded instead.

The fact of having obtained a Prize in the earlier part of the year does not debar a Senior Freshman from being awarded one of the Prizes offered at the end of Trinity Term, or at the Michaelmas

Examination.

Catechetical Lectures and Examinations are conducted by (a) Fellows of the College, being Members of the Church of Ireland; (b) Professors or Lecturers in the Divinity School; (c) Ministers nominated by the Presbytery of Dublin whose names have been submitted to and approved of by the Board; and (d) by any Presbyterian Fellow of the College appointed by the Catechist.

The Board of Trinity College are willing, on due application being made to them by the heads of other religious denominations, to make similar arrangements for the religious instruction of

Students of such denominations.

Subjects of Catechetical Examinations.—The following Table contains the subjects of the Catechetical Lectures and Examinations:—

N. B.—The subjects printed in Italics are to be considered as additional for Honors, and are not required generally.

#### JUNIOR FRESHMEN.

MICH. TERM AND HILARY EXAM.

(The Gospel of St. Luke. The three other Gospels.

HILARY TERM AND TRINITY EXAM.

The Acts of the Apostles. Paley's Horæ Paulinæ (omitting xi-xv), and Stalker's Life of St. Paul.

TRINITY TERM AND MICH. EXAM.

"The Church Catechism Explained," by A. W. Robinson (Church of Ireland).

The Epistle to the Hebrews (Church of Ireland). Dr. Alex. Whyte on the Shorter Catechism, Questions 82-107. (Presbyterian Church.) Godet's Biblical Studies on the Old Testament. Essays iv., v., vi. (Presbyterian Church.)

#### SENIOR FRESHMEN.

MICH. TERM AND HILARY EXAM.

Genesis, and the first twenty chapters of Exodus. The remainder of Exodus, with the Books of Leviticus (chaps. 10, 14, 16, 23, 24, 25), Numbers, and Deuteronomy,

HILARY TERM AND TRINITY EXAM.

The two Books of Samuel, and first eleven chapters of first Book of Kings. The Books of Joshua, Judges, and Ruth.

TRINITY TERM AND MICH. EXAM.

The first Book of Kings, chap. 12 to end, and the second Book of Kings (Church of Ireland). The Books of Ezra, Nehemiah, Haggai, and Malachi. (Church of Ireland.)

Lindsay, The Reformation, Parts 1., 11., and IV.

(Presbyterian Church.)

Godet's Lectures in defence of the Christian Faith, Essays i., v., vi. (Presbyterian Church).

A system of Catechetical Examinations is extended over the two Sophister years, and the Catechist is authorized to grant a special Certificate to Students who have passed with credit four of these Examinations, of which two at least must be in the Senior Sophister year, one being the Michaelmas Examination of that year.

The Catechist is authorized to extend his Premiums to the Sophister

Classes.

#### JUNIOR SOPHISTERS.

HILARY EXAM.,

Epistles to the Ephesians and Colossians in Greek, and Revised Version.

J. Armitage Robinson's The Study of the Gospels. (Church of Ireland.)

Dr. James Moffatt's Paul and Paulinism. (Presbyterian Church.)

TRINITY EXAM... Epistle to the Romans in Greek, and Revised Version.

Westcott's The Bible in the Church. (Church of Ireland.)

Dr. David Brown's Handbook on the Epistle. (Presbyterian Church.)

MICHAELMAS EXAM...

First Epistle to the Corinthians in Greek, and Revised Version.

Blunt's A History of the Christian Church during the First Three Centuries. (Church'of Ireland.)

Macpherson's Westminster Confession of Faith. Introduction and chaps i, ii, vi, and viii. (Presbyterian Church.)

SENIOR SOPHISTERS.

HILARY EXAM.. . Epistle to the Galatians in Greek, and Revised Version.

> Cur Deus Homo. (Church of Ireland.) MacGregor's Handbook on Galatians. (Pres-

byterian Church.)

TRINITY EXAM .... Epistle to the Hebrews in Greek, and Revised Version.

> Perry's History of the Reformation in England. Jewel's The Apology of the Church of England. (Church of Ireland.)

Davidson's Handbook on the Epistle to the Hebrews, (Presbyterian Church.)

MICHAELMAS EXAM., (For Candidate Bachelors.)

The Minor Prophets in the Authorised and Revised Versions. A. B. Davidson's Biblical and Literary Essays

## Admission of Momen to Degrees.

## 1. Resolution passed by the Senate, June 9th, 1903:-

"That it is desirable that Degrees in the University of Trinity College, Dublin, shall be opened to Women, and that His Majesty's Government be requested to obtain a King's Letter empowering the University to grant Degrees to Women on such terms and conditions as may seem to the Board and Council, within their respective provinces, on full consideration, to be most expedient."

## 2. ROYAL LETTERS PATENT received January 16th, 1904 :-

EDWARD THE SEVENTH, by the Grace of God of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas, King, Defender of the Faith, To all

to whom these Presents shall come, Greeting.

Whereas, We are informed by the Provost and Senior Fellows of Our College of the Holy and Undivided Trinity of Queen Elizabeth near Dublin that the Senate of the University of Dublin have by a large majority prayed that the Degrees of the said University may be conferred upon Women, subject to the regulations and restrictions which the Provost and Senior Fellows of the College and the Senate of the University may hereafter agree to impose.

And whereas, when the Statutes were framed, there being no desire on the part of women to proceed to such Degrees, the wording of the Statutes did not explicitly include or exclude

them.

And whereas, nevertheless, the Provost and Senior Fellows of the said College are advised that there are doubts whether the Charter and Statutes of the College can be so interpreted as to permit the conferring of Degrees on women, the words "Studiosi" and "Studentes" having hitherto and by long practice been interpreted to mean men only and not women.

And whereas they are, nevertheless, desirous to give effect to the resolution of the Senate, and to admit women to Degrees

under the regulations and restrictions aforementioned.

Know ye, therefore, that We of Our special grace, certain and mere motion, with and by the advice and consent of Our Right Trusty and Right Well-beloved Cousin and Councillor William Humble, Earl of Dudley, Knight Grand Cross of the Roys Victorian Order, Lieutenant General and General Governor of that part of Our said United Kingdom called Ireland, do by these Presents authorize and empower the said Provost and Senior Fellows and their successors in office and the said Senate of the University of Dublin and the Caput of the said Senate, and all the members thereof and all other persons or bodies whose concurrence is necessary for the granting of Degrees, to interpret the Statutes of the said College in such a manner that women may obtain Degrees in the said University, all previous laws, ordinances, and interpretations notwithstanding.

And We do hereby for Us, Our heirs and successors, grant and declare that these Our Letters Patent, or the enrolment or exemplification thereof, shall be in all things good, firm, valid, and effectual in law, according to the true intent and meaning of the same, and shall be constructed in all Our Courts in the most favourable and beneficial sense and for the advantage of the said

College, anything to the contrary notwithstanding.

Provided always that these Our Letters Present be enrolled in the Record and Writ Office of our High Court of Justice in Ireland, Chancery Division, within the space of six calendar months next ensuing the date of these presents.

In witness whereof We have caused these Our Letters to be

made Patent.

Witness William Humble, Earl of Dudley, Our Lieutenant General and General Governor of Ireland, at Dublin, the eighth day of December in the third year of Our reign.

3. Resolutions adopted by the Board on March 21, 1903, and modified on May 5, 1906:—

1. Women shall be admissible to all Lectures, Examinations, and Degrees in Arts, and in the Medical School.

2. All prizes in Arts and the Medical School, except Fellow-

ship and Scholarship, shall be open to women.

3. Non-foundation Scholarships shall be instituted for women, and obtained on conditions similar to those formerly holding good for such Scholarships.

4. The fees for women, both in Arts and in the Medical

School shall be the same as those for men.

5. For Medical Lectures, the Professors of the Medical School shall make such arrangements, subject to the approval of the Board, as they may think best for the instruction of women, either separately or in conjunction with men.

6. Women shall practise Dissections separately from men.

Resolution adopted by the Board and Council on May 29 and June 1, 1907 :--

<sup>&</sup>quot;That Women shall be admissible to Lectures, Examinations, and Degrees in Law."

The Board adopted on June 4, 1904, the following Resolution regarding Women Students: —

Women Students or Graduates of other Universities in which women are given full academic status, are entitled to every privilege granted to men of the same standing.

# 4. REGULATIONS WHICH WOMEN STUDENTS ARE EXPECTED TO OBSERVE.

## (Formulated in Hilary Term, 1905; Amended in Trinity Term, 1908.)

As Women Students are now equally admissible with Men Students to Lectures and Examinations, and to the privilege of reading in the Library, they are equally subject to the College Discipline and Statutes; and in particular, they are expected to observe the following regulations:—

1. Except when entering or leaving College, they shall wear their Academicals in the College Squares and Parks, unless accompanied by a chaperon.

2. Women Students shall not visit at private rooms in College unless accompanied by a chaperon, or with the Provost's sanction

in exceptional circumstances.

3. Those desiring private tuition in College will notify the Lady Registrar, who will arrange for it in rooms to be sanctioned by the Provost.

4. Rooms have been set apart in Nos. 5 and 6, Trinity College, for the use of Women Students. Their Examination Marks will be posted up in these rooms, which will be closed at 6 o'clock, P.M.

5. Women Students attending Lectures must reside either with their parents or guardians in town, or in Trinity Hall, unless by special leave from the Provost. They should communicate with the Lady Registrar at least one week before the commencement of Lectures.

6. All general information as to Lectures, Examinations, and the Special Regulations for Women Students may be obtained

from the Lady Registrar as well as from the Tutors.

7. The Lady Registrar will be responsible to the College for the due carrying out of the Regulations, and she will act generally as adviser to the Women Students.

Miss Olive Constance Purser, M.A., was appointed Lady Registrar on June 22, 1918, and Miss Elizabeth Margaret Cunningham, M.A., Warden of Trinity Hall on May 16, 1908.

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### TRINITY HALL.

## RESIDENCE FOR WOMEN STUDENTS.

In the year 1908 the house and grounds, now known as Trinity Hall, were acquired by the University, and established as the official residence for those Women Students who do not reside with their parents or guardians. The adjoining house and grounds were purchased in 1910 by John Purser Griffith, M.I.C.E., and Mrs. Griffith, and presented to the University, in memory of Frederick Purser, M.A., F.T.C.D. In the grounds, which are about 10 acres in extent, the Dublin University Ladies' Hockey and Tennis Clubs have their field and courts; and Trinity Hall thus serves as one of the centres for the use of all Women Students, whether resident or non-resident.

Trinity Hall has direct tramway connexion with Trinity College either by the Palmerston Park or by the Dartry Road

line.

Fees for the term of ten weeks for full board and residence, with a study bedroom, are from £15 to £21, according to the size of the room. There are a few double rooms, for which each of the joint-owners pays somewhat less. Personal expenses, such as laundry, are not included in these fees.

Further particulars may be obtained from the Warden, Miss

Cunningham, M.A., Trinity Hall, Dartry Road.

## Recognition of other Universities.

## Admission of Students from the Universities of Oxford and Cambridge.

STUDENTS in Arts, of the Universities of Oxford and Cambridge, desiring to become Members of the University of Dublin, will be allowed credit for their previous Academic attendance, according to the following rules (Resolution of the Board and Council, June 30, 1917):—

1. Students in Arts who have kept, by residence, two Terms at Oxford, and have passed Responsions, in "Stated Subjects," will be entitled to be placed in the Senior Freshman Class.

The same standing will be allowed to Cambridge Students who have kept, by residence, two Terms, and have passed the Previous

Examination.

2. Students in Arts who have kept, by residence, four Terms at Oxford, and have passed the First Public Examination, will be entitled to be placed in the Junior Sophister Class, provided they qualify or have qualified in all the subjects of the Final Freshman Examination.

The same standing will be allowed to Cambridge Students who have kept, by residence, four Terms, and passed the Previous

Examination.

3. Oxford Students who have kept, by residence, six Terms, and have passed the First Public Examination, will be entitled to be placed in the Senior Sophister Class, provided they qualify or have qualified in all the subjects of the Final Freshman Examination.

The same standing will be allowed to Cambridge Students who have kept six Terms, and passed both parts of the General

Examination.

4. Students in Arts who have kept, by residence, nine Terms at Oxford, and have passed the First Public Examination, will be admitted to the Examination for the Degree of B.A., provided they qualify or have qualified in all the subjects of the Final Freshman Examination.

The same privilege will be allowed to Students who have kept nine Terms at Cambridge, and have passed both parts of the

General Examination.

5. Students from Oxford or Cambridge desiring to be placed on the Books of Trinity College, Dublin, must produce, in addition to their Certificate of the Terms kept by residence, a Certificate of good conduct, signed by the Head of their College or Hall, or by the Censor of Non-Collegiate Students. (Resolutions passed by the Board and Council, March 12, 1910, March 8, and May 10, 1911.)

1. That no Students or Graduates of any other University (excluding Oxford and Cambridge) should be allowed to take the B.A., unless they have kept at least two Academic years at T.C.D.

2. That no Student should be allowed to take any of the Degrees in Medicine, Surgery, and Midwifery, unless he has attended at least three years of the prescribed curriculum in the School of

Physic, Trinity College.

3. That any Student who is a Bachelor or Master of Arts of a University recognized by the Board and Council may be allowed, by special permission of the Board, credit for the two Freshman years and the Final Freshman Examination; and that such Student should be allowed to have his name placed on the College books as a rising Junior Sophister, upon payment of the final fee of the Senior Freshman year.

If it should appear that any such Student has not studied, as part of the approved Courses in the University at which he has graduated, any of the compulsory subjects for the Final Freshman Examination, then the Senior Lecturer should have power to require such Student to pass a qualifying examination in such

subjects.

4. That the following Universities should be recognized under the foregoing rule, viz.:—the Universities of Aberdeen, Belfast, Birmingham, Bristel, Edinburgh, Glasgow, Leeds, Liverpool, London, Manchester, St. Andrews, Sheffield, Wales, the Royal University of Ireland, and the National University of Ireland.

## 3. Arrangements with Magee College, Londonderry.

Provisional arrangements, made in reply to an application from Magee College, passed the Board and Council on June 9, 1909, and were accepted by Magee College, on June 30, 1909. They were to be reconsidered at the end of five years, or sooner by consent of both parties.

They were reconsidered by the Board and Council on July 4,

1910, and are now as follows:-

1. On the completion of the two years' Course in Magee College in April, a Student of Magee College becomes eligible for the Final Freshman Examination in Trinity College in the following October, or in June, on payment of the October Fees by anticipation. On passing that Examination he may return to Magee for the third year's Course there; and after attending a Term of Lectures, and passing an Examination at the end of it, in the Junior Sophister Course of Trinity, will be credited with a Junior Sophister Term, and, on attending the Trinity Term of Lectures in Trinity College, will be credited with the Junior Sophister year.

- 2. A Student who wishes to postpone his Final Freshman Examination till the Supplemental Final Freshman Examination, after the completion of the third year's Course at Magee, will be allowed provisional credit for a Junior Sophister Term in Trinity, on attending the Lectures, and passing the Examination of the third year's Course in Magee, as in par. 1. The Term thus saved will be credited as a Junior Sophister Examination, when the Student shall have passed the Supplemental Final Freshman Examination, and full credit will be given for the Junior Sophister year on the same conditions as in par. 1.
- 3. The Senior Sophister year will be kept in Trinity College by keeping the Michaelmas or Hilary Term of Lectures in Trinity College. Students who keep the fourth year of the Magee Course at Magee College may obtain credit for a Senior Sophister Term by keeping the Lectures of Trinity Term in Trinity College.
- 4. The Degree Examination may be taken by any Moderatorship, or by the ordinary Examination in December, or, in special cases, at the Degree Examinations in June.
  - 5. Vested interests will be recognized and allowed-

(a) To those who are already on the College books.

(b) To those who have entered or shall have entered Magee College in 1909 or 1910, on the faith of the "General Regulations," published and largely circulated by Magee College.

## 4. Recognition of Arts Studies of certain Colonial and Indian Universities and Colleges.

The University of Dublin is prepared to recognize the Arts studies of the following Colonial and Indian Universities, and such others as the Board and Council may from time to time direct to be added to that list (Resolution of the Board and Council, March 10, 1900):—

The Universities of Acelaide, Allahabad, Bombay, Calcutta, M'Gill (Montreal), Madras, Melbourne, New Brunswick, New Zealand, The Punjab, Sydney, Tasmania, Toronto, King's College, Windsor, Nova Scotia.

The privileges in Arts granted to the Students of such Universities are as follows:—

Any Student producing the proper Certificates that he has passed two years in Arts studies at such Universities or Colleges, and has passed the Examinations belonging to that period, will be entitled to put his name on the College books as a Senior Freshman, or Student with one year's credit; with this reservation, that if it shall appear that the Course of Arts which he has pursued does not include all the subjects of the Junior

Freshman year, the Senior Lecturer may require him to qualify by Examination in the omitted subject or subjects within one month after his name shall have been entered on the books.

To such Students the Entrance Fee, and the May half-yearly

Fee of the Junior Freshman year, are remitted.

## 5. Terms of Admission for South African Students.

- 1. Students who have passed the Matriculation Examination of any University in South Africa, including Latin, and either French, German, Dutch, or Greek, are allowed to enter Trinity College, Dublin, without further Examination.
- 2. Students who have passed the joint Matriculation Examination of the Universities in South Africa, in the subjects required by the General Medical Councila are permitted to enter Trinity College and to proceed with their Medical Course without further examination. Such Students, upon registering themselves in the School of Physic, are exempted from payment of the College Entrance Fee, provided they proceed as Medical Students of the First Collegiate Year.
- 3. A Student who has passed the Matriculation Examination, as in par. 2 above, and has also obtained credit for attendance for one year in Botany, Zoology, Chemistry, and Physics, including practical work, at any University or College in South Africa approved for this purpose by the Board and Council, will be permitted, on production of the usual certificate to that effect, to present himself for the Preliminary Scientific Examination, and will keep his terms according to the rules in force for all Medical Students. To such Students the Entrance Fee and the May Fee of the First Year will be remitted.
- 4. Students who have passed in Botany, Zoology, Chemistry, or Physics at the first B.Sc. (Agriculture) Examination of any University in South Africa, are exempted from the corresponding portions of the Preliminary Scientific Examination. Such students. if they have credit for a six months' course of lectures in Anatomy and Dissections at the University of Cape Town, should they enter the Medical School in or before October, will be enabled to present themselves for the Intermediate Medical Examination, Part I, at the end of their second Medical year. Students to whom this section applies are subject to the same rules, in respect of terms and fees, as students dealt with in par. 3 above.

a Including Latin.

b The University of Cape Town, the University of Stellenbosch, and Grey University College, Bloemiontein, the Transvaal University College, Pretoria. Rhodes University College, Grahamstown, and Natal University College, Pietermaritzburg, being constituent Colleges of the University of South Africa, are approved under this rule by the Board and Council.

5. The students who have passed in Botany, Zoology, Chemistry, and Physics at the first B.Sc. (Agriculture) Examination of any University in South Africa, and have also obtained credit for the full courses of Anatomy and Physiology (including practical work) at the University of Cape Town, are accepted as Medical Students who have completed their second year of study, and may enter for the Intermediate Medical Examination, Part 1, omitting Organic Chemistry. Such students are permitted to take Organic Chemistry in their Third Medical Year and at the Intermediate Medical Examination, Part 11.

When such students have attended the lectures prescribed for medical students in Trinity Term (May-June), they may present themselves at the Final Freshman Examination, held at the close of the Second Collegiate Year, in the subjects required from all Medical Students; and they are granted the exemptions from fees laid down in II., par. 3 below.

Courses in Pathology and Bacteriology, both lectures and practical, taken at the University of Cape Town, are recognized by the Board and Council, it being understood that candidates for the Medical Degrees of the University of Dublin must spend at least three years' study in Dublin, and must pass the Intermediate Medical, Part I, and all subsequent Examinations.

## П.

- 1. A Student who has passed the Intermediate Examination of any University in South Africa, is permitted to present himself at the Final Freshman Examination, with exemption from those subjects in which he has already passed at the Intermediate Examination.
- 2. Students who have obtained credit for two full years of the Medical Course in the University of Cape Town, and have also passed the first B.Sc. (Agriculture) Examination, as in I, par. 5 above, may, when they have attended the lectures prescribed for medical students in Trinity Term (May-June), present themselves at the Final Freshman Examination in the subjects required from all medical students. But if such students have also passed the Intermediate Examination of the University of Cape Town, they are exempted both from attendance at the above-mentioned lectures in Trinity Term and, at the Final Freshman Examination, from such of the subjects required from medical students as they have already passed in at the Intermediate Examination.
- 3. The Entrance and half-yearly fees up to and including the half-yearly fee payable at the end of the Junior Freshman year are remitted in the case of every student holding the credits mentioned in either of the two preceding sections.

#### III.

A Student who has passed the B.A. Examination of any University in South Africa, is permitted to put his name on the Books of Trinity College as a rising Junior Sophister, i.e., as a student who has obtained credit for the first two Collegiate years and for the Final Freshman Examination.

To such students the Entrance and half-yearly fees up to and including that payable in May of the Senior Freshman year are

remitted.

#### IV.

In keeping their Terms, Students from South Africa are allowed to substitute Dutch for Greek, French, or German.

#### V.

# EXHIBITIONS AWARDED TO STUDENTS FROM SOUTH AFRICA.

The following scheme for awarding South African Exhibitions was adopted by the Board, for the year 1920.

- 1. The distribution of the South African Exhibitions shall be as follows:—
  - (a) Two to be nominated by the University of Capetown.
  - (b) Two to be nominated by the University of Stellenbosch.
  - (c) Two to be nominated by the University of South Africa.
- 2. The nomination by each University shall be made before March 1st in each year. The Exhibitioner should join Trinity College before April 15th.
- 3. The Exhibitions shall be granted to Medical Students only (unless the Board of Trinity College shall in a special case determine otherwise).
- 4. For the purpose of these Exhibitions Students of other Colleges, who afterwards join the University of Capetown, shall be regarded as Students of the University of Capetown.
- Exhibitioners will be expected to take the Degree of M.D. (unless specially exempted), and in the matter of hospital attendance and otherwise to comply with the directions given by the authorities of Trinity College.
- 6. The value of these Exhibitions shall be £150 if three years of the Medical Education are taken in Trinity College, £175 if four years, and £200 if the whole Medical Course is taken in Trinity College.
- 7. The first payment of an Exhibition is made at the end of the first quarter after the Exhibitioner has joined Trinity College.
- Exhibitioners must reside in College, unless expressly exempted by the Provost.
- No person shall be disqualified for nomination to an Exhibition by reason of his holding any Exhibition or Scholarship in South Africa.

# Exhibition awarded to Graduates in Medicine of Melbourne University.

By order of the Board of Trinity College, Dublin (dated 20th April, 1918), the University of Melbourne is entitled to nominate one of its medical graduates to an exhibition of £100, with rooms, rent free for six months, in Trinity College, intended to defray, in part, the expenses incurred in obtaining the Diploma in Gynæcology and Obstetrics granted by the University of Dublin. This regulation will hold for one such graduate in each of the five years beginning October, 1918.

The Regulations for the Diploma and the fees payable in connexion with it are given under that heading.

During, or at the end of, his course of instruction the exhibitioner is eligible for election to the post of External Maternity Assistant at the Rotunda Hospital, and, at the end of his course, for the post of Assistant Master.

The fee in Trinity College entitles the exhibitioner to all privileges enjoyed by students of the University, including attendance on lectures in the Arts Faculty, and enables him to join any College Society.

## Honor Courses.

STUDENTS may become Candidates for Honors in the following subjects, at each Term Examination in the Undergraduate Course:—

JUNIOR FRESHMEN, . Mathematics ; Classics ; History ; English Literature ; French ; German.

Senior Freshmen, . Mathematics; Classics; Mental and Moral Philosophy; History; English Literature; French; German.

JUNIOR SOPHISTERS, Mathematics; Classics; Mental and Moral Philosophy; Experimental Science; Natural Science; History and Political Science; Modern Literature; Legal and Political Science.

Senior Sophisters, . Mathematics; Classics; Mental and Moral Philosophy; Experimental Science; Natural Science; Legal and Political Science.

A Prize Examination is held in Mental and Moral Philosophy in the Michaelmas Term of the Junior Freshman year; Prize Examinations are also held in Experimental Science, in Natural Science, and in Old and Middle Irish in the Michaelmas Term of the Senior and Junior Freshman years; and a Prize Examination in Celtic Languages in the Michaelmas Term of the Junior Sophister year.

At the B. A. Degree Examination, Students may graduate in Honors in ten subjects, viz.:—

Mathematics.
Classics.
Mental and Moral Philosophy.
Experimental Science.
Natural Science.
History and Political Science.
Modern Literature.
Legal and Political Science.
Engineering Science.
Celtic Languages.

The regulations by which the rank and value of the various Honors and Prizes are determined have been already given (see above, under the head "Honors and Prizes").

## & I .- MATHEMATICS.

[The books recommended by the Mathematical Committee are printed on a separate leaflet.

Credit will be given for style and neat arrangement of answers.

Candidates are expected to bring into the hall books of tables and Mathematical instruments. A practical paper will be set in each Freshman Term.

In Michaelmas Term a general paper will be set covering all the preceding Honor Course.]

#### JUNIOR FRESHMEN.

## MICHAELMAS LECTURES AND HILARY EXAMINATION.

Geometry.—Elementary theory of maxima and minima, mean centres, transversals (including harmonic and anharmonic ratios), poles and polars, inversion, coaxal circles, projection.

Geometrical treatment of the general focal properties of conics, with particular application to the ellipse and parabola.

Drawing of graphs.

Algebra.—Arithmetical and geometrical progressions; scales of notation; surds; quadratic equations and simultaneous equations of the second degree; permutations and combinations; binomial theorem for a positive integral index.

Trigonometry.—To the end of solution of plane triangles; use of logarithms; numerical solution of triangles.

## HILARY LECTURES AND TRINITY EXAMINATION.

Geometry.—Cartesian equations of right line and circle. Graphic solution of equations.

Algebra.—Elementary convergence of series, binomial theorem, logarithms, exponential and logarithmic series, partial fractions, elementary continued fractions, algebraic series, relation between the roots and coefficients of a rational integral algebraic equation. Elementary symmetric functions.

Trigonometry.—De Moivre's theorem. Exponential forms of trigonometrical functions. Trigonometrical series. Expression of trigonometrical functions by infinite products.

#### TRINITY LECTURES AND MICHAELMAS EXAMINATION.

Geometry.—Cartesian equations of the general conic, and of central conics and parabola in their simplest forms.

Spherical Trigonometry.—Relation between the sides and angles of a spherical triangle, radii of inscribed and circumscribed circles; spherical excess.

Algebra.—Theory of convergence of series (continued), rational and irrational numbers, the continuum.

Differential Calculus.—Continuity and discontinuity of functions; limits of functions; differential calculus to the end of Taylor's theorem for one variable.

Integral Calculus.—Elementary integration; integration between limits.

Elementary Mechanics.—Laws of motion; composition and resolution of velocities, accelerations, and forces; equilibrium under coplanar forces; polygon of forces; simple applications of graphic methods; simple machines; work and energy.

#### SENIOR FRESHMEN.

### MICHAELMAS LECTURES AND HILARY EXAMINATION.

Algebra.-Elementary determinants.

Differential Calculus.—Maxima and minima of functions of one variable; partial differentiation; elementary application of the differential calculus to plane curves (tangents, normals, curvature).

Integral Calculus.—Integration of rational functions; integration by successive reduction; elementary application of the integral calculus to areas and lengths.

Statics.—Equilibrium under coplanar forces, excluding friction; virtual work.

Dynamics.—Rectilinear motion of a particle; harmonic motion; projectiles; constrained uniplanar motion under gravity.

#### HILARY LECTURES AND TRINITY EXAMINATION.

Differential Calculus.—Calculation of the effects of small errors; successive partial differentiation; extension of Taylor's theorem to several variables; asymptotes; plotting of curves; envelopes.

Integral Calculus. —Integration by rationalization; areas and lengths of curves.

Analytical Geometry.—The plane and right line in rectangular Cartesian co-ordinates.

Statics.—Equilibrium of bodies under coplanar forces, including the general theory of friction; graphic statics; application of the calculus to finding centres of gravity.

Dynamics. - Motion of a particle under a central force.

#### TRINITY LECTURES AND MICHAELMAS EXAMINATION.

Analytical Geometry. -- Central quadrics in rectangular Cartesian coordinates.

Differential Equations.—Equations of first order, and linear equations with constant coefficients (two variables).

Attractions.—Elementary theory of attraction and potential for particles; uniform plane and spherical distributions of matter; tubes of force.

Integral Calculus.—Elementary theory of multiple integrals, with applications to the determination of volumes and surfaces, and centres of gravity of solids.

Algebra.—Solution of cubic and biquadratic; symmetric functions; Sturm's theorem; Horner's method of approximation.

Dynamics.—Constrained motion of a particle; motion of a particle in a resisting medium.

#### JUNIOR SOPHISTERS.

## MICHAELMAS LECTURES AND HILARY EXAMINATION.

Geometry.—Confocal quadrics; general theory of surfaces in rectangular Cartesian coordinates; curvature of surfaces and twisted curves.

Trigonometry.—Exponential and Logarithmic series for complex variable.

Differential Equations.—Well-known miscellaneous methods, homogeneous equations, exact equations, ordinary linear differential equations (two variables).

Integral Calculus.—Integrals of inertia; reduction of elliptic integrals to normal forms.

Dynamics.—General principles, energy, momentum; motion of a rigid body parallel to a fixed plane.

Statics.—General equations of equilibrium in three dimensions; wrenches; equilibrium of strings under coplanar forces.

## HILARY LECTURES AND TRINITY EXAMINATION.

Geometry.—Torsion of curves; homogeneous equations of curves and surfaces,

Differential Equations.—Integration by series of Legendre's and Bessel's equations; Riccati's equation; the differential equation satisfied by the hypergeometric series.

Attractions.—General theory of potential, Green's theorem, elementary applications of spherical harmonics, inversion, images. (Attraction of quadrics excluded.)

Hydrostatics.—Pressure at a point, resultant pressure over areas, general equations of equilibrium, equilibrium of floating bodies when the fluid is at rest or rotating as a rigid body.

## [End of Scholarship Course.]

## TRINITY LECTURES AND MICHABLMAS EXAMINATION.

Differential Equations.—Total differential equations and simultaneous equations.

Analysis.—Complex variable; theory of power series; absolute convergence; uniform convergence; Riemann's theory of integration for real variables.

Dynamics.—Motion of a rigid body in three-dimensions, screws, Euler's equations.

#### SENIOR SOPHISTERS.

#### MICHAELMAS LECTURES AND HILARY EXAMINATION.

Differential Equations.—Partial differential equations of the first order, Lagrange's and Charpit's methods.

Analysis.—Fundamental properties of analytic functions; Taylor's Laurent's and Liouville's theorems; residues, with simple applications to the evaluation of definite integrals; asymptotic expansions.

Dynamics. — Lagrange's generalized equations of motion; small oscillations.

Attractions .- Attractions of quadries.

## HILARY LECTURES AND TRINITY EXAMINATION.

Geometry and Algebra.—Invariants and covariants of the binary cubic and binary quartic. Invariants and covariants of homogeneous quadratic forms in three variables.

Higher Analysis. — Fourier's series, elementary properties of gamma-functions, of Legendre's and Bessel's functions, and of spherical harmonics.

Hydrodynamics.—Fundamental property of a fluid, Euler's and Lagrange's forms of the equations of motion, Weber's transformation; steady motion; velocity potential, Stokes' theorem, irrotational motion in simply connected and multiply connected regions, Green's theorem; sources and sinks, images; stream function in two dimensions; motion of a circular cylinder in an infinite liquid; vessel in the shape of an elliptic or equilateral prism rotating uniformly; motion of a sphere in an infinite liquid; Stokes' stream-function; vortex motion, expression of velocities in terms of expansion and rotation, velocity potential due to a vortex, vortex sheets; rectilinear vortices.

#### TRINITY LECTURES.

Higher Analysis.—Doubly periodic functions, elementary properties of the functions  $\sigma(u)$ ,  $\zeta(u)$ ,  $\rho(u)$ ,  $\sigma(u)$ ,  $\sigma(u)$ ,  $\sigma(u)$ ,  $\sigma(u)$ ,  $\sigma(u)$ .

Elasticity.—Heterogeneous strain, heterogeneous stress; expressions of stress in terms of strain, strain-energy-function; equations of equilibrium; spherical shells under uniform normal pressure; cylindrical shells under uniform surface-tractions; torsion of a prism when the cross-section is an ellipse, an equilateral triangle, or a rectangle; equilibrium of thin beams assuming the bending moment proportional to the curvature, equation of three moments.

## § II.—CLASSICS.

The principle on which the Honor Examinations in Classics are conducted is to test the proficiency of the Student on the following points:—

First. As to his minute and critical knowledge of certain defined portions of the Greek and Latin authors.

Secondly. As to his general and independent knowledge of the Greek and Latin languages, and their literature, to be proved by his ability to write an accurate version of passages from the prescribed Honor Course, and also from Classical works not prescribed; as well as to answer, in writing, general questions connected with the languages, and their literature.

Thirdly. As to his power of expressing the full meaning and force of an ancient author, by writing such a translation of a given passage as may deserve commendation, not merely for its correctness as a version of the original, but for its excellence as a piece of English Composition.

With these objects in view, the manner of conducting the Classical Honor Examinations is as follows:

- 1. Candidates for Honors will be separately examined, vivâ voce, in the portions of the Honor Course marked in Italics in the following Table.
- 2. Passages will be proposed for written translation, taken from the works of the Greek and Latin writers named in the following Table:—

#### JUNIOR FRESHMEN.

MICH. LECT. AND HILARY EXAM. Euripides:—Medea, Bacchae; Hercules Furens. Horace:—Odes, Epodes, Carmen Seculare. Ovid's Heroides, edited by Palmer (Clarendon Press), 1.--xiv., inclusive. HILARY LECT. AND TRINITY EXAM. Homer:—Odyssey, Books vi. ix. xxi. xxii.;
Odyssey, Books x.-xvii., inclusive.
Virgil, Eeneid, Books i., ii., iii., v.; Eneid,

Books IV., VI., VII.

TRINITY LECT. AND MICH. EXAM. Herodotus:—Books I. VIII.; Books VI. VIII.
Livy:—Books XXI. XXII. XXIII.; Books XXIV.

#### SENIOR FRESHMEN.

MICH. LECT. AND HILARY EXAM. Plato:—Apologia Socratis, Gorgias; Phaedo. Cicero:—Pro Milone, Philippic 11; Cicero in his Letters 1.-xxxIII.: Cicero in his Letters, xxxiv.-lxxx. (Tyrreil's Edition, published by Macmillan).

HILARY LECT. AND TRINITY EXAM. Sophocles:—Ajax, Antigone; Philoetetes. Plautus:—Trinumus, Miles; Captivi. Terence:—Phormio.

TRINITY LECT. AND MICH. EXAM.

Homer:—Iliad, Books XXI.-XXIV., inclusive; Iliad, Books XIII.-XX., inclusive.
Virgil:—Æneid, Books IV. VI. VIII. IX.; Æneid, Books VII. X. XI. XII.
Ovid:—Metamorphoses, Book XIII.

#### JUNIOR SOPHISTERS.

MICH. LECT. AND HILARY EXAM. Thucydides:—Books I. VII.; Books III. IV. Tacitus:— Agricola; Histories, Books I. II. Histories, Books III. IV.

HILARY LECT. AND TRINITY EXAM. Demosthenes: — Olynthiacs, Philippic 1., De Corona.
Aeschines:—In Ctesiphontem.

Juvenal:—Satires I. III. IV. VII. VIII. X. XIII. XIV. Persius:—Satires I. II. III. V. VI.

TRINITY LECT. AND MICH. EXAM. Aeschylus: — Prometheus Vinctus; Agamemnon, Septem contra Thebas. Lucretius: — Books I. II.; Books III. v. vI. Horace: — Satires.

#### SENIOR SOPHISTERS.

MICH. LECT. AND HILARY EXAM. Aristotle:—Nicomachean Ethics, Books II. VI.; Nicomachean Ethics, Books I. III. IV. V. Cicero:— De Officiis; De Finibus, Books I. II. III.; Tusculan Disputations, Book I.

HILARY LECT. AND TRINITY EXAM. Plato:—De Republica, Books 1. 11. 111.; De Republica, Books 1v. v.
Virgil:—Ecloques and Georgics.

Horace: - Epistles, including the Art of Poetry.

3. One or more passages will also be proposed for written translation from the *other* works of Greek or Latin Prose or Poetical authors specified for each Examination, with a view of testing the Candidate's general knowledge of the languages.

4. Papers of questions will be proposed in Ancient History and Geography, Grammar, and General Literature, and also subjects for Composition in Greek and Latin Prose, Greek and Latin Verse.

5. During the first three years, Candidates for Honors will be regularly lectured and examined in definite portions of Ancient History, Literature, or Philology; and, at each Examination, the Candidates will be liable to be examined in the portions appointed for the previous Examinations.

The following Table shows the prescribed Courses in History

and Literature until further notice :-

#### JUNIOR FRESHMEN.

## HILARY EXAMINATION.

Greek, . Mahaffy's Greek Literature, vol. 1., chaps. 14 to 17.

Roman, . Tyrrell's Latin Poetry, chaps. 1 to 7.

#### TRINITY EXAMINATION.

Greek, Mahaffy's Greek Literature, vol. 1., chaps. 1 to 5. Bury's History of Greece, chaps. 1, 2.

Roman. . Sellar's Virgil, chaps. 2, 3, 8, to 11.

## MICHAELMAS EXAMINATION.

Greek, . Mahaffy's Greek Literature, vol. 11., chaps. 1, 2.

Bury's History of Greece, chaps. 3 to 8.

Roman, . How and Leigh's History of Rome, chaps. 17 to 30.

#### SENIOR FRESHMEN.

## HILARY EXAMINATION.

Greek, . Bury's History of Greece, chaps. 9 to 11.

Roman, . How and Leigh's History of Rome, chaps. 31 to 52.

## TRINITY EXAMINATION.

Greek, . Bury's History of Greece, chaps. 12 to 15.

Roman, . How and Leigh's History of Rome, chaps. 1 to 17.

Tyrrell's Latin Poetry, chaps. 1, 2.

## MICHAELMAS EXAMINATION.

Greek, . Bury's History of Greece, chaps. 1 to 8.

Roman, . Bury's Student's Roman Empire, chaps. 1 to 13.

Merivale's History of the Romans under the Empire, chapters 40 and 41.

Tyrrell's Latin Poetry, chap. 5.

#### JUNIOR SOPHISTERS.

#### HILARY EXAMINATION.

Greek, . Mahaffy's Greek Literature, vol. 11., chaps. 4, 5.
Bury's History of Greece, chaps. 9 to 15.

Roman, . Bury's Student's Roman Empire, chaps. 14 to 21.

#### TRINITY EXAMINATION.

Greek, . Bury's History of Greece, chaps. 16 to 18.

Roman, . Bury's Student's Roman Empire, chaps. 14 to 25.

Tyrrell's Latin Poetry, chaps. 7, 8.

## MICHAELMAS EXAMINATION.

Greek, . Mahaffy's Greek Literature, vol. 1., chaps. 15, 16.

Haigh's Attic Theatre.

Roman, . Bury's Student's Roman Empire, chaps. 26 to end.

Tyrrell's Latin Poetry, chaps. 1 to 8.

## § III. - MENTAL AND MORAL PHILOSOPHY.

In addition to questions from the books recommended, candidates will be examined in their general knowledge of the subject, period, or school under study.

#### JUNIOR FRESHMAN YEAR.

TRINITY LECTURES AND MICHAELMAS EXAMINATION.

## Logic.

Course of reading recommended :-

Keynes' Logic (Fourth Edition), Introduction, Part i; Part ii, Chaps. 2, 3, 4, 5, 9, 10; Part iii, Chaps. 1-6, 8, 10.

#### SENIOR FRESHMAN YEAR.

MICHAELMAS LECTURES AND HILARY EXAMINATION. Logic.

Course of reading recommended:-

Keynes' Logic, as in Junior Freshman Honor Course. Joseph's Introduction to Logic, Chaps. 17-25.

Bacon's Novum Organum, Bk. i.

HILARY LECTURES AND TRINITY EXAMINATION.
Psychology.

Course of reading recommended: --- Höffding's Psychology.

TRINITY LECTURES AND MICHAELMAS EXAMINATION.

#### Modern Pre-Kantian Intellectualism.

Course of reading recommended:-

Descartes' Meditations.

Leibniz' Monadology and New System (with Explanations). Spinoza's Ethics, Bks. i and ii.

#### SOPHISTER COURSE.

Each term special attention is given to some period or school of Philosophy.

In each period the corresponding portions in Schwegler's History of Philosophy and either A. K. Rogers' Student's History of Philosophy, or Alexander's Short History of Philosophy, should be consulted.

In addition to questions from the books recommended, general and critical questions will be asked; and Candidates should study the books from this point of view.

#### JUNIOR SOPHISTER YEAR.

MICHAELMAS LECTURES AND HILARY EXAMINATION.

## English Pre-Kantian Philosophy.

Course of reading recommended :-

Locke's Essay Concerning Human Understanding, Introduction, and Bks. ii and iv.

Berkeley's Principles of Human Knowledge.

Hume's Enquiry Concerning Human Understanding.

HILARY LECTURES AND TRINITY EXAMINATION.

## The Philosophy of Kant.

Course of reading recommended :-

Kant's Kritik of the Pure Reason, to the end of the Analytic.

TRINITY LECTURES AND MICHAELMAS EXAMINATION.

The Philosophy of Kant.

Course of reading recommended :-

Kant's Kritik of the Pure Reason, the Dialectic and Methodology.

#### SENIOR SOPHISTER YEAR.

MICHAELMAS LECTURES AND HILARY EXAMINATION.

## Ancient Ethics.

Course of reading recommended: — Plato's Republic.

Aristotle's Ethics.

#### HILARY LECTURES.

#### Modern Ethics.

Course of reading recommended :-

Kant's Fundamental Principles of the Metaphysic of Morals. Kant's Kritik of the Practical Reason. Butler's Sermons and Nature of Virtue. Spencer's Data of Ethics. Sorley's Ethics of Naturalism.

## TRINITY LECTURES.

## The Philosophy of Hegel.

Course of reading recommended : - .

Hegel's Subjective Logic, Introductory Chapters and Section 1.

## & IV .- EXPERIMENTAL SCIENCE.

Candidates in Experimental Science are required to answer in two Courses, one in Experimental Physics, the other in Chemistry.

The following Syllabus is intended to indicate the general lines on which the Lectures and practical work will be arranged. The Examination in each Term will be more especially upon the work of the preceding Term, but at the same time Students will be liable for any of the previous work.

#### JUNIOR AND SENIOR FRESHMAN YEARS.

Prizes are given in Experimental Science at the close of the Junior and Senior Freshman Years. The Examinations for these Prizes are held in Michaelmas Term, on dates arranged at the end of Trinity Term. The following Course has been appointed:—

#### JUNIOR FRESHMEN.

## Course in Experimental Physics.

Methods of accurate measurement of length, area, volume, time, and

mass. Plotting of curves, the slope and area of curves.

The parallelogram of forces, the laws of motion, the acceleration due to gravity, the pendulum and balance wheel, impulse, momentum, impact, the simple machines, the laws of friction, the laws of fluid pressure, the flow of liquids, Boyle's law, the measurement of atmospheric pressure, the density of solids, liquids, and gases, surface tension.

The use of lenses, magnifying glasses, and the micrometer eyepiece.

Practical Work.—Measurement by means of the vernier, micrometer screw, spherometer, callipers, balance, squared paper, planimeter, and specific gravity bottle; construction of measuring glasses; plotting of curves; measurement of the acceleration due to gravity, of the density of substances, of liquid and air pressure, of surface tension; determination of the focal lengths of lenses and mirrors; verification of the various laws referred to above.

## Course in Inorganic Chemistry.

The subjects specified for Entrance Prizes; the general relations of gas density to molecular weight; the law of diffusion of gases and its

experimental verification.

The usual methods of preparation and the chief properties of the non-metallic elements and of their principal compounds. Methods of determination of the equivalents and atomic weights of the elements. The basicity of acids.

General characters of metals as compared with those of non-metals. The preparation and properties of the commonly occurring metals and

of their chief compounds.

In addition to the ordinary Course, Honor Lectures will be given once

a week on Fridays.

Practical Work.—The experimental verification of equations expressing simple interactions and the systematic analysis of salts for negative radicals only, and simple quantitative experiments.

#### SENIOR FRESHMEN.

## Course in Experimental Physics.

Characteristics of liquids, solids, and gases, compressive and shearing strains and stresses, Young's modulus of elasticity. Diffusion.

The simpler phenomena of Heat-

Temperature, the expansion of substances, calorimetry, the laws of fusion and evaporation, saturated vapours, the hygrometric state of the atmosphere, convection of heat.

The simpler phenomena of Magnetism and Electricity-

The laws of magnetic force, magnetic induction, magnetic effects of electric currents, methods of measuring current strength, development of heat in a simple circuit, measurement of electric pressures and resistances, Ohm's law, electromagnets, electric bells, telegraphs and telephones.

The simpler phenomena of Sound-

The vibrations of particles and bodies, wave motion, resonance, velocity of sound propagation in air, measurement of wave length and frequency. Vibrating strings. Organ pipes.

The simpler phenomena of Light-

Reflection and refraction, prisms, lenses, indices of refraction, disper sion, photometry, the construction and magnifying power of telescopes and microscopes.

Practical Work.—Measurement of Young's modulus, coefficients of expansion, specific heats, latent heats of ice and steam, dew-point by Dines' hygrometer; plotting lines of magnetic force, measurement of moment of magnet and the horizontal component of the earth's force, electric currents, pressures, and resistances, measurement of velocity of sound in air, of wave-length and frequency, of the relative intensities of two lights, of the angle between two reflecting surfaces, and of refractive index. Verification of the various laws referred to in the above.

## Course in Inorganic Chemistry.

The History of Chemistry to the time of Dalton; the atomic theory; equivalents; Gay Lussac's law of volumes; Avogadro's hypothesis; molecular and atomic weights.

The Chemistry of the non-metals more fully treated than in the previous Course. Dissociation; catalytic action; exothermic and endothermic reactions; compound radicles and rational formulæ; valency.

The specific heat of elements and compounds; isomorphism; the periodic classification of the elements; specific gravity, atomic volume and electrochemical character of the elements. The Chemistry of the metals more fully treated than in the previous Course.

Honors lectures on the above course will be given once a week.

## Course in Organic Chemistry (Elementary).

The paraffins and their derivatives; fermentation, hydrolysis, and saponification; isomerism. Detection of the elements in organic compounds.

Practical Work.—Systematic analysis of simple salts and recognition of common organic acids. Determination of molecular weight of acids and bases. Volumetric estimation of acid and alkaline substances. Preparation and crystallisation of salts.

#### SENIOR AND JUNIOR SOPHISTER YEARS.

Honors in Experimental Science are given at each Examination in the Junior and Senior Sophister years.

#### JUNIOR SOPHISTERS.

#### HILARY EXAMINATION.

## Course in Experimental Physics.

General properties of matter, moments of inertia, variation of atmospheric pressure with height, compressibility of solids and liquids, elastic properties of solids, tevsion, flexure, work done by elastic forces.

Heat.—Mechanical equivalent of heat, air and platinum thermometers, weight thermometer, cubical expansion of solids, Regnault's experiments on the expansion of gases, maximum density of water, Regnault's experiments on steam-pressure, critical temperature, pressure, and volume, change of volume accompanying change of

state, Joly's steam calorimeter, wet and dry bulb hygrometer, chemical hygrometer, Bunsen's ice calorimeter, conductivity, diffusivity, radiation, equality of radiating and absorbing powers, selective absorption,

diathermancy. The steam-engine. Meteorology.

Practical Work.—Use of the cathetometer, dividing engine, chemical balance, Kater's pendulum, piezometer; use of weight and air thermometers, Joly's steam calorimeter and Bunsen's ice calorimeter, measurement of vapour density and pressure, wet and dry bulb hygrometer, correction for radiation in calorimetry, measurement of heat of combustion, specific heat of gases, conductivity, diffusivity, mechanical equivalent of heat.

## Course in Chemistry.

(At each Examination in the Sophister years, questions may be asked, not only on the subjects comprised in the Ccurse specified for that Examination, but also in all earlier Courses.)

Inorganic Chemistry as before.

The general properties of gases:—Laws of Boyle, Gay Lussac, Dalton; Avogadro's hypothesis; specific heat at constant pressure and constant temperature; behaviour of gases under high pressures; lique-faction. The general properties of liquids:—surface tension; vapour pressure; heat of vaporisation; the boiling point. The general properties of solids:—the melting point; vapour pressure; the volatilising point. Mixtures of gases, of liquids, and of solids; additive properties. Vapour pressures and boiling points of mixed liquids (including pairs of non-miscible and partially miscible liquids); composition of liquid and vapour phases; fractional distillation.

Honor Lectures on Physical Chemistry for Junior Sophisters will be given once a week.

Organic Chemistry.—The Course for Senior Freshmen more fully treated.

Honor Lectures on Organic Chemistry will be given on Mondays and Wednesdays.

Practical Work.—Analysis of mixed substances containing not more than two metals. Detection of alkaloids and organic acids. Volumetric analyses involving oxidation and reduction. Determination of boiling points and melting points.

#### TRINITY EXAMINATION.

## Electricity and Magnetism.

Molecular nature of magnetism, terrestrial magnetism, bifilar and vertical magnetometers, dip circle, declination circle; mirror galvanometer, magnetic system of units, ballistic galvanometer, magnetic permeability, electro-magnetic induction, construction of dynamos and motors, Ruhmkorff's coil, electrolysis, migration of ions, potentiometer, chemical batteries, polarisation, thermo-electricity, electrical radiation.

Electrostatics.—Laws of force, distribution on conductor, induction, electroscopes, condensers, machines, quadrant and guard-ring electrometers, electrostatic voltmeter, capacity.

Practical Work.—Use of bifilar magnetometer, dip and declination circles, mirror and ballistic galvanometers, voltameters, measurement of rate of migration of ions, use of potentiometer, measurement of capacity by quadrant electrometer and by ballistic galvanometer, measurement of low and high resistance, and of magnetic permeability.

## Course in Chemistry.

The properties of dilute solutions; osmotic pressure; direct and indirect methods of determining osmotic pressure; relation between osmotic and gaseous pressure. The kinetic theory of gases; application of theory to gases under high pressure; Van der Waals's theory and generalisations; the critical point; methods of determining the critical constants. Application of the kinetic theory to dissociating gases.

Organic Chemistry.—Unsaturated hydrocarbides and their chief derivatives. The hydroxy acids. Stereoisomerism. Carbohydrates, natural and synthetic. Urea and uric acid, and their derivatives.

Practical Work.—General volumetric and gravimetric estimation of single commonly occurring metals. Determination of nitrogen. [Textbook, Clowes and Coleman's Quantitative Analysis.]

#### MICHAELMAS EXAMINATION.

Sound.—Graphic and analytical representation of vibration and wavemotion, compounding vibrations, interference, diatonic scale and temperament, intervals, summation and difference tones, vowel sounds, vibrations of bars and plates, compounding vibrations in rectangular planes, Kenig's flames, phonograph, resonators, Döppler's principle, photographic records.

Light.—Velocity of propagation, wave theory, reflection and refraction, rectilinear propagation and diffraction, interference, Newton's rings, rainbow.

Practical Work.—Use of syren, graphic measurement of frequency, determination of velocity of sound, Kundt's method, optical method of compounding vibrations, use of resonators, diffraction grating, biprism, Fresnel's mirrors, Newton's rings, plotting spectrum.

## Course in Chemistry.

Determination of molecular weights of liquids from their surfacetension. Determination of molecular weight of dissolved substances. The laws of electrolysis. Molecular association and dissociation. Nature of salt solutions. Thermal Chemistry.

Organic Chemistry.—Benzene and its homologues, and their more important derivatives. Cyclic hydrocarbides and their derivatives. The alkaloids and their constitution. The terpenes.

Practical Work.—Ultimate organic analysis. Use of polariscope. Preparation of two typical organic substances.

Note. - The quantitative practical work in Experimental Physics and Chemistry carried out and properly recorded during this year will be taken into account in deciding the merits of candidates.

#### SENIOR SOPHISTERS.

#### HILARY EXAMINATION.

## Course in Experimental Physics.

Thermodynamics. — Indicator diagrams, isothermal and adiabatic changes, specific heats, efficiency, reversible engines, absolute scale of temperature, flow of gas through a porous plug. Kinetic theory of gases.

Electricity.—Alternating currents, dynamometers, Cardew's voltmeter, Kelvin balance, ammeters and voltmeters, self-induction and mutual induction, secohmmeter, transformers, characteristics of series, shunt, and compound dynamos, efficiency of electric transmission of power, B.A. measurement of the Ohm, Lorentz' method, induction motors polyphase currents, theory of telegraphy.

Practical Work.—Taking indicator diagram, determination of effects of

salts in solution on freezing and boiling points.

Measurement of coefficients of self- and mutual induction, capacity, strong magnetic fields, efficiency of motors and lamps, plotting characteristics of dynamos, standardising dynamometers and voltmeters.

## Course in Chemistry.

The relations between the physical properties—boiling point, molecular volume, molecular refraction, molecular rotation—of compounds and their chemical composition and constitution.

Organic Chemistry.—Determination of constitution of organic substances. General methods of identification of the various radicles.

Note.—During this term a few special lectures on Organic Chemistry will be given.

Practical Work.—Application of analysis to natural and artificial products. Electro-chemical analysis. Gas analysis.

#### TRINITY EXAMINATION.

## Course in Experimental Physics.

General properties of matter—Pressure in flowing fluid, spray distributors, momentum and energy of fluid, viscosity, electric chrono-

graph, rates of diffusion, spheroidal state.

Light.—Colours, achromatism, anomalous dispersion, polarization, Fresnel's theory, double refraction, Nicol's, Rochon's, and Wollaston's prisms, wave surface in crystals, conical refraction, metallic reflection, quarter wave plate, Fresnel's rhomb, rings and crosses of polarized light, rotatory polarization, magnetic action on light, production of polarized light.

Practical Work.—Pressure in flowing fluid, measurement of coefficient of viscosity, of velocity of bullet electrically. Plotting anomalous spectrum, determination of focal lines for light through lens in direction inclined to axis, measurement of angle between optic axes of crystal, observation of internal and external conical refraction, measurement of rotatory power of sugar solutions, and of refractive index by polarizing angle.

## Course in Chemistry.

Chemical Mechanics:—Guldberg and Waage's theory. Chemical equilibrium:—Reversible reactions and dissociation phenomena. Chemical dynamics.

Organic Chemistry.—Continuation of work of previous term with a

view to Chemical research.

Practical Work .- Extension of previous course.

#### TRINITY TERM.

During the three Terms of the Senior Sophister year, Lectures are delivered in Physics on the Special Course for Moderatorship specified for the year.

Each Student will carry out during Trinity Term an investigation depending on the special course he has selected for Moderatorship. The results should be handed in to the Professor prior to the Moderatorship Examination in October.

## § V.—NATURAL SCIENCE.

#### JUNIOR AND SENIOR FRESHMAN YEARS.

Prizes are given in Natural Science, at the close of the Junior and Senior Freshman years. The Examinations for these Prizes are held in Michaelmas Term, on days specified in the University Almanac. The following Course has been appointed:—

#### JUNIOR FRESHMEN.

Zoology, . . Entrance Prize Course.

External morphology of Sea Anemone; Earthworm; Crayfish; Spider; Snail; Pigeon or other Bird; Rabbit or other Mammal.

General Principles of Physiology.

Thomson's Outlines of Zoology may be consulted.

Botany, . . The Morphology and Physiology of the following types:—Saccharomyces, Sphaerella, Nostoc, Bacillus, Spirogyra, Volvox, Vaucheria, Mucor, Phytophthora, Penicillium, Peziza, Agaricus, Fucus, Polysiphonia, Marchantia, Polytrichum, Pteris, Larix, Scilla, Ranunculus. (Principles

of Botany: Bergen and Davis.)

Geology, . . Huxley's Physiography, with Geikie's Class Book of Geology, to end of chap. xiv. A practical acquaintance with the rocks and minerals described in the Course will be expected of the candidate, and he is recommended to attend the practical demonstrations given in Trinity Term.

#### SENIOR FRESHMEN.

ZOOLOGY, Entrance Prize Course and Junior Freshman Course as before.

External morphology of Zoophyte; Starfish; Leech; Centipede; Mya or Anodon; Cuttle-fish; Cod or other Fish; Lizard. Internal morphology of Fish; Frog; Bird

Mammal.

Life-history of Zoophyte.

Thomson's Outlines of Zoology may be consulted.

As before, with the morphology and physiology BOTANY. of the following types:-Badhamia, Puccinia, Physcia, Pilobolus, Pythium, Callithamnion, Ectocarpus, Pelvetia, Drapernaldia, Pellia, Sphagnum, Marsilia, Selaginella, Equisetum, Lycopodium, Taxus, Iris, Cheiranthus. (Principles of Botany: Bergen and Davis.)

As before, with the Demonstrations in Petrology GEOLOGY. . and Mineralogy of Michaelmas Term.

N.B.—Students are recommended to apply to the Professors of Zoology, Botany, and Geology for access to specimens illustrating the Courses.

Junior and Senior Freshmen taking up Natural Science may attend with advantage the Michaelmas Term Lectures of the Professor of Geology, who will give any information required on application.

Honors are given at each Examination in the Junior and Senior Sophister years.

#### JUNIOR SOPHISTER YEAR.

#### HILARY EXAMINATION.

Zuology. . . As before; with the Professor's Lectures and Demonstrations during Michaelmas Term.

. As before, with the Professor's Lectures and the practical work during Michaelmas Term. (Strasburger's Text Book of Botany, Part ii., sect. i. Thallophyta and Bryophyta.)

GEOLOGY, . . The Professor's lectures during Michaelmas Term. The student should refer to Geikie's Text Book of Geology, vol. i. Questions in Elementary Petrology and Mineralogy will he set.

#### TRINITY EXAMINATION.

- ZOOLOGY, . . . . As before; with the Professor's Lectures and
  Demonstrations during Hilary Term.
- BOTANY, . . . . As before, with the Professor's Lectures and the practical work during Hilary Term. (Strasburger's Text Book. Part ii., sects. i. and ii. Pteridophyta and Phanerogamia.)
- Geology, . . . . The Professor's lectures and the Demonstrations in Palæontology during Hilary Term. Lapworth's Intermediate Text Book of Geology, Part II., and Wood's Palæontology may be consulted. Questions in Petrology and Mineralogy will be set.

### MICHAELMAS EXAMINATION.

- ZOOLOGY, . . . . As before; with the Professor's Lectures and Demonstrations during Trinity Term.
- BOTANY, . . . . As before, with the Professor's Lectures and the practical work during Trinity Term. (Strasburger's Text Book. Part i., sec. ii.)
- Geology, . . . The work for the Trinity Examination and Marr's Principles of Stratigraphical Geology.

#### SENIOR SOPHISTER YEAR.

## HILARY EXAMINATION.

Zoology, . . . As before.

BOTANY, . . . As before, with practical work.

Geology, . . . The work for the Michaelmas Examination of the Junior Sophister year. Geikie's Text Book of Geology, vol. ii, may be consulted.

#### TRINITY EXAMINATION.

Zoology, . . . As before.

BOTANY, . . . As before, with practical work.

GEOLOGY, . . . As for the Hilary Examination.

## § VI .- HISTORY AND POLITICAL SCIENCE.

#### JUNIOR AND SENIOR FRESHMAN YEARS.

Honor Examinations, of one day each, in Modern History are held in Hilary and Trinity Terms of the Junior and Senior Freshmen years, and Prize Examinations in Michaelmas Terms.

The following Course has been appointed:-

#### JUNIOR FRESHMAN YEAR.

Period | English and Irish History, 449-1485.

No books are specially prescribed for any of the examinations. The following are recommended only as a guide to candidates in their reading:—

## HILARY EXAMINATION.

A. English and Irish History, 449-1066. (One paper):

[Oman, England before the Norman Conquest. Joyce, Short History of Ireland: Part II.]

B. European History, 476-918. (One paper):

Oman, . The Dark Ages,

Bryce, . The Holy Roman Empire, chaps. 1-6.

Davis, . . . . . Charlemagne.

## TRINITY EXAMINATION.

A. English and Irish History, 1066-1272. (One paper):

[Davis, England under the Normans and Angevins. Joyce, Short History of Ireland: Part III, chaps, i to

x, inclusive. ]

B. European History, 918-1273. (One paper):

[Tout, . The Empire and the Papacy.

Bryce, . The Holy Roman Empire, chaps, 6-13.

Fisher, . The Medieval Empire, chaps. 1, 3, 7, 10.]

## MICHAELMAS EXAMINATION.

A. English and Irish History, 1272-1485. (Two papers):

[Hunt and Poole, The Political History of England, Vols. III and IV.

Trevelyan, . England in the Age of Wycliffe.
Gairdner, . Introduction to The Paston Letters,

Bagwell, . Ireland under the Tudors, chaps. 5-7. O'Connor Morris, Ireland (ed. Dunlop), chap. 2.]

B. European History, 1273-1494. (Two papers):

[Lodge, . The Close of the Middle Ages.

Lavisse et Ram- Histoire Générale, vol. III, chaps. 1-6.

Armstrong, . Lorenzo de' Medici.]

#### SENIOR PRESHMAN YEAR.

Period English and Irish History, 1485-1801. European History, 1494-1814.

#### HILARY EXAMINATION.

A. English and Irish History, 1485-1603. (One paper):

Hunt and Poole, The Political History of England, vol. v. Pollard, Henry VIII.

Creighton, . Queen Elizabeth.

O'Connor Morris, Ireland (ed. Dunlop), chaps. 3, 4.

B. European History, 1494-1598. (One paper):

Johnson, . Europe in the Sixteenth Century. The Cambridge Modern History, vol. 1, chap. 19.

#### TRINITY EXAMINATION.

A. English and Irish History, 1603-1714. (One paper):

Trevelyan, . England under the Stuarts.

Firth, Oliver Cromwell.

Gardiner, . Cromwell's Place in History.

Lecky, . History of Ireland in the Eighteenth Century.

The Cambridge Modern History, vols. 1v, chap. 18; v, chap. 10.

B. European History, 1598-1715. (One paper):

Wakeman, . The Ascendancy of France.

Acton, . Lectures on Modern History, chaps. 9-15.

## MICHABLMAS EXAMINATION.

A. English and Irish History, 1714-1801. (Two papers):

Hunt and Poole, The Political History of England, vols. IX and X.

Morley, . Walpole.
Morley, . Burke.
Rosebery, . Pitt.

Lecky, . History of Ireland in the Eighteenth Century,

chaps. 2-5, 7, 8, 12, 13.

The Cambridge Modern History, vol. vi, chap. 14.

B. European History, 1715-1814. (Two Papers):

Hassall, . The Balance of Power. Morse Stephens, Revolutionary Europe.

Johnston, . History of the French Revolution.

Rose, Napoleonio Studies.

#### JUNIOR SOPHISTER YEAR.

Honors are given in History and Political Science at each Examination in the Junior Sophister year.

No books are specially prescribed for any of the examinations. The following are recommended only as a guide to candidates in their reading :--

## HILARY EXAMINATION.

A. English Constitutional History, to 1307. (One paper):

. The Constitutional History of England. [Maitland, . Magna Carta. Historical Introduction. M'Kechnie,

Stubbs. The Constitutional History of England, chaps.

15 and 19.

Petit-Dutaillis, . Studies Supplementary to Stubbs' Constitutional History.

Medley, . English Constitutional History.

B. European History. The First Three Crusades. (One paper):

. The Crusaders in the East, [Stevenson,

. History and Literature of the Crusades. Sybel,

Stubbs. . Preface to Itinerarium Regis Ricardi (Rolls

Series).

Archer, . The Crusade of Richard I.

. The Art of War in the Middle Ages.] Oman.

C. Economic History. Outlines of History to 1600.

. Economic History of England. Introduction, Meredith. Books I and II.]

#### TRINITY EXAMINATION.

A. English Constitutional History, to 1625. (One paper):

Maitland, . The Constitutional History of England.

. The Privy Council. Dicey,

Prothero, . Introduction to Select Statutes, etc., 1558-1625.

. English Constitutional History. Medlev.

B. European History. The Thirty Years' War. (One paper):

[Gindely, . History of the Thirty Years' War, Gardiner. . The Thirty Years' War.

. Gustavus Adolphus.] Fletcher.

C. Economic History. Outlines of History, 1600-1760. . Economic History. Book III. Meredith,

Unwin, , Industrial Organization.

#### MICHAELMAS EXAMINATION.

A. English Constitutional History, from 1625. (One paper):

[ Maitland, . The Constitutional History of England. Gardiner, . Introduction to Constitutional Documents, 1625.

1660. . The Law of the Constitution. Dicey,

Low, . The Governance of England. Medley, . English Constitutional History.

B. European History, 1814-1878. (One paper):

W. Alison Phillips, Modern Europe.

The Cambridge Modern History, vols. x and xi (for reference)].

C. Economic History. Outlines of History, 1760-1900. [Meredith, . Economic History. Book IV.

Toynbee. . Industrial Revolution.

## & VII .- MODERN LITERATURE.

Separate Honor Examinations are held each Term in the Freshman years in English Literature, in French, and in German. The following Courses have been appointed:

## ENGLISH LITERATURE.

JUNIOR FRESHMEN.

## Hilary Examination.

History of English Literature: 1500 to 1600, but including whole career of Shakespeare; as in Wyatt and Low's Text-Book of English Literature.

Shakespeare: A Midsummer Night's Dream: Henry V.

Spenser: The Faery Queene, book i.

More: Utopia, with Roper's Life of More (ed. Lumly, Cambridge). Palgrave's Golden Treasury, book i.

## Trinity Examination.

History of English Literature: 1600 to 1660, but including whole career of Milton; as in Wyatt and Low.

Shakespeare: Julius Caesar; Coriolanus. Spenser: The Faery Queene, book ii.

Bacon: Essays.

Palgrave's Golden Treasury, book ii.

## Michaelmas Examination.

History of English Literature: from the beginnings to 1500, as in Wyatt and Low.

Shakespeare: As You Like It; Twelfth Night.

Milton: Lycidas; Comus.

Spenser: Colin Clout's Come Home Again.

Sidney: Apology of Poetry.

## SENIOR FRESHMEN.

## Hilary Examination.

History of English Literature: 1660 to 1798, as in Wyatt and

Chaucer: Prologue to Canterbury Tales.

Shakespeare: Merchant of Venice; The Tempest. Milton: Paradise Lost, books i, ii; Areopagitica.

### Trinity Examination.

History of English Literature: 1798 to 1832, as in Wyatt and Low.

Chaucer: Knight's Tale; Squire's Tale; Nun's Priest's Tale.

Shakespeare: Richard III; Romeo and Juliet.

Addison: Coverley Papers, and Critical Papers, from the Spectator (selections ed. T. Arnold, Oxford).

#### Michaelmas Examination.

Chaucer: Clerk's Tale; Prioress's Tale; Sir Thopas; Prologue to Legend of Good Women.

Shakespeare: Macbeth; Hamlet. Dryden: Absalom and Achitophel.

Pope: Rape of the Lock; Essay on Criticism.

Swift: Drapier's Letters.

#### FRENCH.

[Students are expected to make themselves acquainted with the outlines of the History of France so far as it bears on the literary period studied in each Term.]

The studies in this department fall into the following three divisions:

- 1. Practical exercises in the use of the spoken and written languages: Pronunciation, Conversation, Composition.
- 2. Theoretical Study of the French Language: Grammar of Modern French, History of the French Language.
- 3. History of French Literature, and detailed study of selected Literary Works.

### JUNIOR FRESHMEN.

# Hilary Examination:

Corneille: Nicoméde (P. de Julleville-Hachette); Le Menteur

(P. de Julieville-Hachette).

Racine: Andromaque (Oxford University Press).
Balzac: Le Colonel Chabert (Clarendon Press).

# Trinity Examination:

Molière: Les Précieuses Ridicules (Lanson—Hachette); Les Femmes Savantes (Lanson—Hachette); L'Avare (Manchester University Press); Le Misanthrope.

Maupassant: Six Contes (Cambridge Univ. Press).

Selections from the French Fabulists (Manchester University Press).

#### Michaelmas Examination

Marivaux : Théâtre (in Tous les Chefs d'œuvre).

Sainte Beuve: Selections (Tilley—Oxford University Press). Les Epistoliers du xviiie Siècle (Dent's Tous les Chefs d'œuvre).

Faguet : Le Dix-Huitième Siècle.

Balzac: Père Goriot (Oxford University Press-American Branch).

# SENIOR FRESHMEN.

# Hilary Examination :

Chateaubriand: Extraits (Brunetière-Hachette).

V. Hugo: La Légende des Siècles (Clarendon Press); Les Feuilles d'Automne.

Hugo: Préface de Cromwell (Souriau).

# Trinity Examination:

Balzac: Eugénie Grandet (Calmann-Lévy).

V. Hugo: Le Rhin (Nelson). Vielé-Griffin: Plus Loin. Sand: La Petite Fadette.

### Michaelmas Examination :

Vigny: Selected Poems (Peers-Manchestar University Press).

Musset: Poesies Nouvelles (excluding Rolla). [In Dent's

Tous les Chefs d'Œuvre.]
Gautier: Voyage en Italie (Pitt Press).

Renan : Souvenirs de Jeunesse.

### GERMAN.

# HONOR COURSE IN GERMAN.

The studies in this department fall into the following three divisions:

- 1. Practical Study of the German Language: Phonetics and Exercises in Pronunciation, Conversation, Composition.
- 2. Theoretical Study of the German Language: Grammar of Modern German, History of the German Language.
- 3. History of German Literature, and detailed study of selected Authors and Literary Works.

Note.—Students are expected to make themselves acquainted with the outlines of the History of Germany in so far as it hears on the literary period studied in each Term. They are further expected to pay some attention to present-day events in Germany, and passages for Unseen Translation from current newspaper and magazine literature will be set at the various examinations.

The following Course has been appointed. It is to be noted that questions may be set at any examination from any part of the Course for a previous examination:—

### JUNIOR FRESHMEN.

# Hilary Examination ;

Robertson: History of German Literature, Part v., first six

Kleist: Prinz Fredrich von Homburg.

Viëtor: Deutsches Lesebuch in Lautschrift, II. Teil. Viëtor: German Pronunciation: Practice and Theory.

# Trinity Examination:

Robertson: History of German Literature, Part v., chaps.

vii. to xii. (inclusive). Heine: Buch der Lieder.

Grillparzer : Der Traum, ein Leben.

### Michaelmas Examination:

Robertson: History of German Literature, Part v., chap. xiii.

to end.

Hebbel: Agnes Bernauer. Sütterlin und Waag: Deutsche Sprachlehre.

# SENIOR FRESHMEN.

# Hilary Examination:

Robertson: History of German Literature, Part iv., first six

chapters.

Lessing: Die Hamburgische Dramaturgie. Lessing: Minna von Barnhelm.

# Trinity Examination:

Bobertson: History of German Literature, Part iv., chaps.

vii. to x. (inclusive). Lessing: Nathan der Weise. Lessing: Emilia Galotti.

# Michaelmas Examination :

Robertson: History of German Literature, Part iv.

Schiller: Wallenstein-Lager und Piccolomini.

Goethe: Hermann und Dorothea.

Goethe: Gedichte, (Lieder, Gesellige Lieder, Aus W. Meister, Balladen, and Vermischte Gedichte.)

Honors are given in Modern Literature at each Examination in the Junior Sophister year. Candidates are permitted to take any two of the three languages—English, French, and German. The numbers of marks assigned to the two languages selected by a Candidate are equal.

The following Courses have been appointed:-

#### JUNIOR SOPHISTER YEAR.

### HILARY EXAMINATION.

ENGLISH. Shakespeare; King Lear; Antony and Cleopatra. Milton: Samson Agonistes. Wordsworth: Matthew Arnold's selection (Macmillan). Palgrave's Golden Treasury, Books iii and iv. Burke: Reflections on the French Revolution.

Scève: Délie (Selections). FRENCH. Ronsard: Selected Poems (Lucas-Clarendon Press), excluding Odes. Du Bellay: Divers jeux rustiques et autres œuvres poétiques (Sansot); Les Regrets (Sansot). Montaigne: Extraits (Petit de Julleville-Delagraye). Lanson: Histoire de la Littérature française. Part iii.

Robertson: History of German Literature, Parts i. GERMAN. and ii., first two chapters. Schiller: Wallensteins Tod. Wright: Grammar of the Gothic Language, (Accidence, Syntax, and Text).

#### TRINITY EXAMINATION.

ENGLISH. Marlowe: Edward II. Shakespeare: Richard II. Byron: Matthew Arnold's selection (Macmillan). Shelley: Stopford Brooke's selection. Keats: Lamia; Eve of St. Agnes. Essays of Elia (First Series).

Corneille: Polyeucte, Don Sanche; La Galerie du FRENCH, Palais (Manchester University Press); Le Cid (P. de Julleville-Hachette). Racine: Athalie (ed. Bernardin, pub. Delagrave); Phèdre (Bernardin-Delagrave). Lanson: (ut supra) Part iv. Hanotaux: La France en 1614 (Nelson).

Robertson: History of German Literature, Part ii., GERMAN. Chaps. iii. to viii. (inclusive). Schiller: Die Räuber. Goethe: Faust, I. Teil.

Wright: Old High German Primer.

# MICHAELMAS EXAMINATION.

ENGLISH, Shakespeare: Othello; A Winter's Tale.
Tennyson: In Memoriam; The Princess; Maud; and
the poems comprised in pp. 27-103 of Macmillan's
one-volume edition of Tennyson.
Browning: Men and Women.

Ruskin: Seven Lamps of Architecture.

FRENCH, Diderot: Extraits (Texte—Hachette).
Regnard: Le Joueur.
La Chancun de Willame (Oxford University Press.

American Branch). Lanson: (ut supra) Part v.

GERMAN, . Robertson: History of German Literature. Parts ii.

Goethe: Faust, II. Teil.

Schiller: Die Braut von Messina. Der Nibelunge Nôt (Sammlung Göschen 1). Wright: Middle High German Primer.

Subjects for English Essays will be proposed at each Examination. The proficiency of Candidates in the other languages will be tested by oral Examination, as well as by written versions from English, and Compositions in the language selected by each Candidate.

# § VIII .- LEGAL AND POLITICAL SCIENCE.

Honor Examinations are held in the Hilary and Trinity Terms of the Junior and Senior Sophister Years, and a Prize Examination in the Michaelmas Term of the Junior Sophister Year.

Candidates for Honors in Trinity Term are liable for the Course of the preceding Term, and candidates in Michaelmas Term are liable for

the Courses of the two preceding Terms.

# Junior Sophisters.

# HILARY EXAMINATION.

JURISPRUDENCE.

The scope and methods of Jurisprudence.
The elements of analytical Jurisprudence.
[Holland, Elements of Jurisprudence, chaps. 1-10; Pollock,
First Book of Jurisprudence, Pt. I.]

### ROMAN LAW.

History of Roman Law: the Law of Persons.

[Justinian, Institutes, Bk. 1. (edited Moyle, with Introduction); Sohm, Institutes of Roman Law.]

### CONSTITUTIONAL HISTORY.

[Maitland, The Constitutional History of England.]

### POLITICAL AND ECONOMIC SCIENCE.

Scope and Method of Economics; Theory of Production and Exchange.

[Taussig, Principles of Economics, Books 1, 2, 3.]

# TRINITY EXAMINATION.

# INTERNATIONAL LAW.

Sources and History of International Law; the Relations of States in Peace.

[Lawrence, Principles of International Law, parts I. and II.; Westlake, International Law, Pt. I., Peace.]

### ROMAN LAW.

The Law of Property and Inheritance.

[Justinian, Institutes, Book II., Book III., Titles 1-12; Sohm, Institutes.]

# CONSTITUTIONAL LAW AND HISTORY.

[Dicey, Law of the Constitution (latest edition), with the Texts of Magna Charta, The Petition of Right, and The Bill of Rights.]

# POLITICAL AND ECONOMIC SCIENCE.

The Theory of Distribution and Consumption.
[Taussig, Principles of Economics, Book 5.]

# MICHAELMAS EXAMINATION.

# INTERNATIONAL LAW.

International Disputes: Belligerency: Neutrality.
[Lawrence, Principles, Parts III. and IV.; Westlake, International Law, Part II., War.]

#### ROMAN LAW.

The Law of Obligations and Actions.
[Justinian, Institutes, Book III., Titles 13 to end, Book IV.; Sohm, Institutes.]

# ENGLISH LAW.

(a) Law of Property. [Strahan and Baxter, General View of the Law of Property.]

(b) Law of Contract. [Anson, Principles of the English Law of Contract.]

(c) Law of Evidence.

[Stephen, Digest of the Law of Evidence,]

POLITICAL AND ECONOMIC SCIENCE.

The economic functions of government.

The theory of taxation and public debts.

[Sidgwick, Elements of Politics, Part 1.; Taussig, Principles of Economics, Bk. viii.; J. S. Mill, Principles of Political Economy, Bk. v.]

# Senior Sophisters:

# HILARY EXAMINATION.

# JURISPRUDENCE.

As in Junior Sophister Year, together with the elements of historical and comparative Jurisprudence.

[Maine, Ancient Law, Early Law and Custom; Holland, Elements of Jurisprudence, chaps. 11-18; Pollock, First Book of Jurisprudence, Part II. 1

# ENGLISH LAW.

(a) Real Property, as in Junior Sophister Michaelmas Examination, together with the work of the ordinary Law Lectures in Michaelmas Term. Equity: The origin and development of the Court of Chancery; the general principles of Equity; the Law of Trusts.

Strahan and Kenrick, Digest of Equity; H. A. Smith, Principles of Equity.

(b) The Law of Torts. [Pollock, Law of Torts.]

POLITICAL AND ECONOMIC SCIENCE.

As in Junior Sophister Year.

# TRINITY EXAMINATION.

# ENGLISH LAW.

(a) Real Property; the work of the ordinary Lectures of Hilary Term. Equity: the doctrines of Election, Conversion, Satisfaction, and Performance; Equitable relief on grounds of Fraud, Misrepresentation, and Mistake; Equitable Remedies.
[Strahan and Kenrick, Digest of Equity; H. A. Smith,

Principles of Equity.

(b) The Law of Easements.

# POLITICAL AND ECONOMIC SCIENCE.

The History of Political and Economic Theories.

[Pollock, History of the Science of Politics; Ingram, History of Political Economy; Dunning, History of Political Theories.]

N.B.—The books mentioned within brackets in the above Courses are intended to show the scope of the examinations, and the standard of attainment expected from candidates.

# §IX. CELTIC LANGUAGES.

Prize Examinations in Old and Middle Irish are held in the Michaelmas Term of the Junior and Senior Freshman Years, and a Prize Examination in Celtic Languages in the Michaelmas Term of the Junior Sophister year. The following Courses have been appointed:—

#### JUNIOR FRESHMAN YEAR.

(a) Texts-

Strachan: Selections from the O.-Ir. Glosses. Scéla na Esergi. Dá Brón Flatha Nime. Strachan, "Stories from the Táin."

- (b) Grammar.
- (c) Joyce: Names of Places.

#### SENIOR FRESHMAN YEAR.

(a) Texts-

Imram Máiledúin. Scéi Muicee maic Dáthó and Echtra Chondla. Táin Bó Fráich. The Würzburg Glosses, Epistle to the Romans.

- (b) Grammar.
- (c) Wakeman: Irish Antiquities.

#### JUNIOR SOPHISTER YEAR.

(a) Texts-

Tochmarc Étáine.

The Würzburg Glosses, Epistles to the Corinthians, Galatians, and Ephesians.

Bruden Dá Derga.

- (b) Grammar of Early Irish and Early Welsh. Thurneysen's and Strachan's handbooks are recommended.
- (c) Joyce: Social History of Ancient Ireland, vol. 1.
- (d) Welsh: Peredur ab Efrawc.

# Moderntorships.

In the Michaelmas Term of the fifth, or Candidate Bachelor, year, the B.A. Degree Examination includes Examinations for Moderatorships in each of the following subjects:—

- 1. Mathematics.
- 2. Classics.
- 3. Mental and Moral Philosophy.
- 4. Experimental Science.
- 5. Natural Science.
- 6. History and Political Science.
- 7. Modern Literature.
- 8. Legal and Political Science.
- 9. Engineering Science.
- 10. Celtic Languages.

The Course appointed for Examination in each of these subjects is as follows:—

#### MODERATORSHIPS IN MATHEMATICS.

The Course for Moderatorships is the same as the Honor Course in Mathematics.

Notice of Candidature must be given to the Senior Lecturer on or before June 15th.

# MODERATORSHIPS IN CLASSICS.

This Course consists of two parts—one general, the other variable from year to year.

Candidates will be critically examined in a Special Course.

# Special Courses for 1919.

GREEK, . . Pindar, Pythian Odes.

Aristophanes, Frogs.

Bucolici Graeci (Öxford text of Wilamowitz, pp. 1-120, omitting Theocritus II, IV, V, XII, XVIII, XXVII, XXIX, XXX, and the epigrams).

LATIN, . . Virgil, Georgies.

Propertius.

Pliny's Letters, Books III-vII (inclusive).

Passages will be set for translation, selected from the Greek and Latin classical authors generally. Candidates will be further examined in the higher Greek and Latin Grammar and Criticism, in the Political and Literary Histories of Greece and Rome, in Greek and Latin Composition, and in Comparative Philology. The following Book is recommended as a source of knowledge in Comparative Philology:—

Giles' Manual of Comparative Philology.

The Course in History and Literature for Classical Moderatorships will be as follows:—

Holm, . . . History of Greece, Vols. I., II., and III.

MAHAFFY, . . History of Greek Literature.

Mommsen, . History of Rome, Book I., chaps. 12-15; Book II., chaps. 8 and 9; Book III., chaps. 12-14; Book IV., chaps. 12 and 13; Book v., chap. 12.

How and Leigh, History of Rome.

Bury, . . . Student's Roman Empire, chaps. 1-25.

TYRRELL, . . Latin Poetry, chaps. 1-8.

Together with the lectures of the Professor of Ancient History and Classical Archæology in Ancient History and Classical Archæology during the two academic years preceding each examination.

The subjects for Essays will be chosen from the above Course.

The numbers assigned as marks to the various subjects of Examination will be as follows:—

			Marks.
Four Papers of Passages, .		٠	80
Four Compositions,			60
Special Course (viva voce), .			60
Higher Grammar and Criticism	,		25
Philology,	an.		25
History and Literature,			50
			300

The arrangement of the Examination will be as follows:-

9.30 a.m. to 12.30 p.m.—1st day, Greek Prose Passages. 2nd day, Greek Verse Passages. 3rd day, Latin Prose Passages. 4th day, Latin

Verse Passages.

2 p.m. to 5 p.m.—1st day, Greek Prose Composition (one hour and a-half), Greek Verse Composition (one hour and a-half). 2nd day, Latin Prose Composition (one hour and a-half), Latin Verse Composition (one hour and a-half). 3rd day, Higher Grammar and Criticism (one hour and a-half), Paper in Philology (one hour and a-half). 4th day, Paper in History and Literature.

Notice of Candidature must be given to the Senior Lecturer, on or

before June 15th.

# MODERATORSHIPS IN MENTAL AND MORAL HILOSOFHY.

- I. Every Candidate will be examined-
  - (a) On his general knowledge of the history and problems of philosophy (30 marks).

(b) On the following compulsory course (40 marks):-

Plato's Republic.

Aristotle's Ethics.

Descartes' Meditations.

Hume's Enquiry Concerning Human Understanding.

Kant's Kritik of the Pure Reason,

Kant's Fundamental Principles of the Metaphysic of Morals.

Hegel's Subjective Logic, Introductory Chapters and Section 1. Höffding's Psychology.

II. Every Candidate shall present for examination any two of the following Courses:—A, B, C, D, E, F (15 marks each), or Course G (30 marks), and shall give notice of his choice to the Professor of Moral Philosophy before the 20th of June preceding his examination.

#### A.

Greek Pre-Socratic and Platonic Philosophy.—Course of reading recommended:—

Ritter and Preller's Historia Philosophiae Graecae, to the end of the Academia Vetus.

#### B.

The Aristotelian, Later Greek, and Mediaeval Philosophy. -- Course of reading recommended: --

Ritter and Preller's Historia Philosophiae Graecae, Aristoteles eiusque discipuli, Sceptici antiquiores, Academici nov. Sceptici recentiores, Philo Judaeus, Neoplatonici.

Wulf's History of Mediaeval Philosophy, Patristic Philosophy, and Mediaeval Philosophy to the middle of the fifteenth century.

C.

Modern Pre-Kantian Intellectualism.—Course of reading recommended:—

Leibniz' Monadology and New System (with Explanations). Spinoza's Ethics, Books i and ii.

#### D.

Empirical Philosophy .- Course of reading recommended :-

Locke's Essay Concerning Human Understanding, Books ii and iv. Berkeley's Principles of Human Knowledge.

James's Progmatism.

Bergson's Creative Evolution.

#### E.

The Philosophy of Kant.—Course of reading recommended:— Kant's Kritik of Judgment.

#### F

The Philosophy of Hegel.—Course of reading recommended:— Hegel's Logic (Part i of Hegel's Encyclopedia).

G

Ancient and Modern Ethics .- Course of reading recommended :-

Zeller's Stoics and Epicureans, Chaps. x-xii, xiv, xix-xxi. Spinoza's Ethics, Books iii, iv, and v.

Butler's Sermons and Nature of Virtue. Kant's Krilik of the Practical Reason.

Spencer's Data of Ethics. Sorley's Ethics of Naturalism.

Green's Prolegomena to Ethics, Books iii, iv, and v.

Seth's Ethical Principles, Introduction.

Notice of Candidature, with Special Courses chosen, must be given to the Senior Lecturer on or before June 15th.

#### MODERATORSHIPS IN EXPERIMENTAL SCIENCE.

THE subjects of Examination for Moderatorships in Experimental Science, and the relative weights to be attached to the different subjects, are as follows:—

the second second		Marks.
(1) General Paper in Physics,		100
(2) Either General Paper in Physics, or General Paper	er	
in Chemistry,		100
(3) Either Special Paper in Physics, or Special Paper	er	
in Chemistry,		100
(4) General Paper in Chemistry,		100
(5) Essays in Physical subjects,		50
(6) Essays in Chemical subjects,		50
(7) Practical Examination in Physics,		50
(8) Practical Examination in Chemistry,		50
(9) Practical work during Sophister years, either 30	00	
marks in Physics, and 100 in Chemistry,		
300 in Chemistry, and 100 in Physics.		400

The Course in each subject consists of the Honor Courses of the Freshman and Sophister Years, together with a Special Course and a Special Investigation. A Special Course in Physics is appointed which, until further notice, will be Current Electricity.

In Chemistry a student is allowed, at the commencement of his Senior Sophister year, to select either Inorganic, Organic, or

Physical Chemistry as his Special Course.

Candidates are not required to answer in the Special Courses in both Experimental Physics and Chemistry, or to undertake research in both branches.

In order to qualify for a Gold Medal, candidates must obtain not less than 35 per cent, in the secondary subject they have taken.

Notice of Candidature, with Special Courses chosen, must be given to the Senior Lecturer, on or before June 15th.

#### MODERATORSHIPS IN NATURAL SCIENCE.

Two Courses of study (A) or (B) are defined as suitable for this Examination; one of these Courses (B) is specially adapted to the requirements of Medical Students.

# (A.)

(A) consists of general Courses in Geology, Botany, and Zoology, together with Special Courses in each subject, which are arranged yearly, and of which Special Courses each candidate must select one.

300 marks are allotted to each of the general Courses, and 100 to the selected Special Course.

# GENERAL COURSES.

Geology, . All the work of the Freshman and Sophister years, and, in addition, a Geological Section, in a locality approved by the Professor, must be submitted along with an Essay descriptive of the Section, and a collection of such minerals, rocks, and fossils as have been obtained in the field.

Zoology, . All the work of the Freshman and Sophister

Botany, . All the work of the Freshman and Sophister years. The work done in the Botanical Laboratory during the Junior and Senior Sophister years will be taken into account in the Moderatorship Examination.

# SPECIAL COURSES FOR 1919.

Geology, . The Palæontology of the Older Palæozoic Rock.

Zoology, . Hydromedusæ and Scyphomedusæ. Botany. . The Movement of Water in Plants.

# (B.)

The subjects of the Examination in (B) are divided into two groups:—

I. II.
Chemistry. Anatomy.
Physics. Physiology.
Botany. Pathology and Bacteriology.
Zoology.

Candidates must present themselves in three subjects, which must not all belong to one group.

The Courses in the subjects of Group I. are arranged with a view to the requirements of Medical Science.

#### CHEMISTRY.

#### INORGANIC.

Methods of preparation and properties of the following elements and of their chief compounds: H, the halogens, S, N, P, As, Sb, Bi, C, alkali metals, Ca, Mg, Zn, Hg, Cu, Pb, Fe. Laws of combustion—Atomic theory—Determination of atomic and molecular weights. Relationships between the elements; the periodic arrangement of the elements. Relations between chemical structure and physiological activity.

#### PHYSICAL.

Vapour density—Abnormal vapour densities—Dissociation—Boiling points, melting points, and specific gravities—Fractional distillation, and distillation under reduced pressure. Sublimation—Rotation of plane of polarised light; the polarimeter.

Absorption Spectra. Solutions—Dialysis and Osmosis—Boiling points and freezing points of dilute solutions; Experimental methods of determination. Modern theories of solution—Elements of Thermochemistry.

#### ORGANIC.

Derivatives of paraffins and olefines—Alcohols, aldehydes, ketones, acids, esters; saponification, hydrolysis; amines, aminoacids, amides. Isomerism, polymerism, tautomerism, stereo-isomerism. Carbohydrates, fermentation, action of enzymes.

Benzene and its simpler homologues and their derivatives. Constitution of ring compounds, orientation. Naphthalene, anthracene, and their simpler derivatives. Pyridine, quinoline, alkaloids, leucomaïnes, and ptomaïnes. Medically important synthetical products. General methods of organic analysis, such as determination of C, II, N, S, P, and halogens.

#### PRACTICAL.

Simple qualitative analysis, inorganic and organic. Volumetric analysis. Organic preparations of a simple character. Use of spectroscope and polarimeter. Determination of molecular weights, boiling points, melting points, and specific gravity.

General Note.—A knowledge of those portions of the subject which bear most directly on Medical Science will be specially required, and the

greatest importance will be attached to Organic Chemistry.

#### Books Recommended.

Inorganic Chemistry, Physical Chemistry, . . Newth's Inorganic Chemistry.

Reychler — M'Crae, Outlines of Physical Chemistry. (Whittaker) Lehfeldt's Textbook of Physical Chemistry.

(Arnoid.)

Organic Chemistry,

Perkin and Kipping's Organic Chemistry with Appendix,

With Appendix,
H. Meyer's Determination of Radicals in

Carbon Compounds. (Translated by Tingle; pub. by Chapman and Hall.)

#### EXPERIMENTAL PHYSICS.

General Properties of matter. Characteristics of solids, liquids, gases. Compressibility, and shearing strains and stresses. Torsion. Flexure. Work done by elastic forces. Pressure in flowing liquid. Spray distributors. Viscosity. Variation of atmospheric pressure with height. Diffusion. Molecular theory.

Measurement of length, area, volume, time, and mass. Laws of motion. Acceleration due to gravity. Pendulum. Friction. Boyle's law. Atmospheric pressure. Measurement of density. Surface tension.

Osmotic pressure.

Heat.—Temperature. Thermometers. Expansion of substances. Force of expansion. Maximum density of water. Air thermometer. Absolute temperature. Weight of given volume of gas. Calorimetry. Specific heat. Heat of chemical action. Laws of fusion. Boiling points and melting points. Evaporation. Saturated vapours. Hygrometry. Vapour density. Conductivity and diffusivity. Radiation. Meteorology. Mechanical equivalent of heat.

Sound.—Simple and complex vibrations of a particle. Sounds and their differences. Wave motion. Velocity of propagation. Measurement of wave-length and frequency. Resonance. Strings. Pipes. Ear. Vibrations of body. Loops and nodes. Chronographs. Vowel sounds.

Light.—Reflection and refraction. Prisms. Lenses. Indices of refraction. Eye. Dispersion. Spectroscope. Achromatism. Construction and magnifying power of telescopes and microscopes. Photometry. Wave-theory. Velocity. Rectilinear propagation. Interference. Diffraction. Polarization. Photography. Phosphorescence. Fluorescence. X-Rays.

Magnetism and Electricity.—Magnets. Terrestrial magnetism. Magnetic effects of currents. Measurements of current, pressure, resistance. Development of heat in circuit. Ohm's law. Electromagnets. Electromagnetic induction. Electromagnetic machines. Ruhmkorff's coil.

Electrolysis. Cells. Polarization. Non-polarizable electrodes. Electrolytic dissociation. Ionic hypothesis. Conductivity of electrolytes.

Solution pressure.

Capillary electrometer. Thermo-electricity. Electric radiation. Electric charges. Electroscopes. Condensers. Electric discharges. Oscillations. High-frequency currents.

#### BOTANY.

1. The principles of Morphology, Anatomy, Histology, and Physiology as illustrated by the following genera:—Comatricha, Saccharomyces, Sphaerella, Nostoc, Bacillus, Spirogyra, Vaucheria, Volvox, Pythium, Mucor, Claviceps, Puccinia, Agaricus, Fucus, Marchantia, Polypodium. Selaginella, Pinus, Lilium, Betula, Ranunculus.

2. The Cytology of somatic and reproductive cells.

3. The general Physiology of metabolism and response in Plants.

### Course Recommended.

Laboratory Work, 120 hours. Strasburger's Textbook of Botany.

Wilson: Cell in Development and Heredity. Bayliss: Principles of General Physiology.

# ZOOLOGY.

1. The cell: its structure, life, and multiplication.

2. General principles of nutrition, respiration, motion, and excretion, especially in the lower forms of animal life.

3. Zygosis. Ovum and sperm. Maturation, fertilization, segmen-

tation.

. 4. Elementary embryology.

5. Study of the following types: - Amæba, Paramœcium, Monocystis, Hydra, Lumbricus, Hirudo, Astacus, Blatta or Periplaneta, Mya or Anodonta, Helix, Amphioxus, Scyllium, Rana, Columba, Lepus.

6. General Morphology of the phyla and classes to which these types belong, with the addition of the phyla Platyhelminthes and Nematel-

minthes.

Additional time required, about 50 hours.

For information as to text-books, application to be made to the Professor of Zoology.

#### ANATOMY.

The anatomy of Man.

The embryonie history of Man.

The ancestral history of Man, as far as it may be inferred from a study of his anatomy and embryonic development.

Comparison of the anatomy of Man-as the most specialised Mammal -with that of the lower Mammalia, and more primitive Vertebrates.

Anatomical methods of investigation.

Text-books: as recommended by the Professor of Anatomy.

# PHYSIOLOGY.

Chemistry of animal tissues and organs; of proteids and their cleavage products; of carbohydrates; of fats.

General Physiology of protoplasm; of muscle and nerve; of electrical

organs. Blood: its composition and properties; the apparatus and mechanism of its circulation.

Lymph-formation: Diffusion and Osmosis in the animal body.

Respiration: The mechanism and chemistry of respiratory interchange. Ventilation.

Secretion and secretory glands. Enzymes.

Digestion: Chemistry of digestive processes. Muscular movements

of the alimentary canal. Absorption. Dietaries.

Metabolism: Internal secretions. Ductless Glands. Source and Liberation of Energy in the animal body. Animal temperature.

Exerction: Functions of the Kidney and Skin. Chemistry of Urine. Nervous System: Structure and Functions of the Brain and Spinal Cord. The Physiology of the Visceral or Autonomic System of Nerves. Organs and Physiology of the Special Senses: Cutaneous and Muscular Sensations. Voice and Speech.

Text-books: to be recommended by the Professor of Physiology.

### PATHOLOGY AND BACTERIOLOGY.

#### SUBJECTS.

(1) General Pathology:-

Anomalies of growth and development. Disturbances of circulation and nutrition. Pathology of the blood. Inflammation. Infection and Immunity. Tumours.

- (2) Morbid Anatomy of the tissues, naked eye and microscopic.
- (3) Pathological Chemistry :-

Qualitative and quantitative analysis of morbid products. Microscopic methods used in Pathology, including microchemical

(4) Bacteriology :-

Methods of cultivating, isolating, and examining micro-organisms. Study of the characteristics of the various forms of Bacteria. Methods of quantitative Bacteriological analysis. Applications of Bacteriology to Clinical Medicine. Infection and Immunity.

A special subject will be selected each year from the above Course, to which the candidates of that year will be expected to devote special attention.

In addition to the Winter and Summer Courses, given by the Lecturer in Pathology, two Practical Courses will be given in the Pathological Laboratory, viz.:-

(1) A Course of two months in Practical Bacteriology.

(2) A Course of three months in Pathological Chemistry and Microscopy.

The first Course may be taken in any year of the Medical curriculum. The second cannot be taken before the session in which the Winter Course in Pathology is being attended.

The Courses will be given on three days in each week, for two hours each day, during the Winter Session. The total number of hours will be about 120.

Students will be allowed to work in the Laboratory at certain times outside the regular class hours.

### Books recommended.

Cohnheim's Lectures in Pathology, Ziegler, Pathological Anatomy. Ainley Walker, Infection and Immunity. Mallory and Wright's Practical Pathology. Salskowski, Practical Pathological Chemistry. Muir and Ritchie, Bacteriology.

Notice of Candidature, with subjects chosen, must be given to the Senior Lecturer on or before June 15th.

# MODERATORSHIPS IN HISTORY AND POLITICAL SCIENCE.

[Candidates will take notice that there may be passages set in Latin, French, and German for translation and comment.]

# I.—General History. (2 Papers.) 250 marks.

General Outline of Ancient Greek and Roman History, to A.D. 285.

and General Outline of Mediæval and Modern European History, from A.D. 285-1848.

Books suggested as suitable for reading—Bury's History of Greece; How and Leigh's History of Rome to the death of Cæsar; Bury's Students' Roman Empire; Robinson's History of Western Europe.

# II.—Special Periods of Ancient or Modern History

(2 Papers.) 350 marks.

A. Ancient History.

Special period of Greek history with original authorities: —

The Pentekontaeteia (479-431 B.C.).

[Candidates are recommended to use Holm's History of Greece, and Hill's Sources for Greek History.]

Special period of Roman history with original authorities: —

The Gracchi, Marius, and Sulla (133-78 R.C.).

[Candidates are recommended to use the Histories of Rome by Mommsen and Greenidge, and Greenidge and Cluy's Sources for Roman History.]

or B. Modern History, special period :-

The French Revolution: its history, causes, and antecedents.

The following books are specially prescribed:

Morse Stephens, . Orators of the French Revolution (omitting in vol. II Barère iv-xi incl. and Baudin).

Arthur Young, . Travels in France (ed. Betham Edwards).

The following books are recommended, but not as compulsory subjects of study:

Morse Stephens, . The French Revolution.

Aulard. . The French Revolution (ed. Miall).

Lavisse, . Histoire de France, vol. IX. Morse Stephens, . Revolutionary Europe.

The Cambridge Modern History, vol. viii.

Taine. L'Ancien Régime.

De Tocqueville, . L' Ancien Régime et la Révolution Française.

Burke, . Reflections on the French Revolution.

Acton, . Lectures on the French Revolution.

Mahan, . Influence of Sea power upon the French Revolution, vol. 1.

Morley, Rousseau, Worley, Voltaire,

Sorel, . L'Europe et la Révolution française, tome i, livre i.

# III.—Constitutional History. (1 Paper.) 100 marks.

A. Warde-Fowler's City State of the Greeks and Romans. Text of the Treatise 'Αθηναίων πολιτεία.

Gilbert (G.), The Constitutional Antiquities of Sparta and Athens.

Greenidge (A. H. J.), Roman Public Life.

or B. ENGLISH CONSTITUTIONAL HISTORY, to 1832.

[Candidates are referred to the books recommended for the Honor Examinations in English Constitutional History, in the Junior Sophister year.]

A knowledge of the text of the following documents will be

required:

The Charter of Liberties of
Henry I.
The Constitutions of Clarendon.
Magna Carta.
Confirmatic Cartarum.
The Petition of Right.
The Bill of Rights.
The Act of Settlement.
England and Scotland.
The Act of Union between Great
Britain and Ireland.

The Instrument of Government, The Reform Act of 1832.

# IV .- Political Science. (1 Paper.)

100 marks.

A. Aristotle's Politics.

Freeman's Comparative Politics.

or B. Bluntschli's Theory of the State.

Egerton's Federations and Unions in the British Empire. Sidgwick's Development of European Polity.

A. L. Lowell's Governments and Parties in Continental Europe.

# V.—Economic History. (1 Paper.)

100 marks.

The Examination in this subject will include:—
The outlines of Ancient Economic history.

English Economic history.

The following books are recommended:-

A. Cunningham (W.), Western Civilization in its Economic

Aspects. Part I. (Ancient Times).

Francotte (H.), L'Industrie dans la Grèce ancienne. Book I., chaps. 1, 2, 4, 6, 7; Book II., chaps. 2, 7; Book III., chap. 4; Book IV., chaps. 4, 5.

Mommsen's Roman History (the portions in the following

Mommsen's Roman History (the portions in the following chapters which deal with Economics:—Book I., chap. 13; Book II., chap. 8; Book III., chap. 12; Book IV., chap. 11; Book V., chap. 11).

Levasseur (E.), Histoire des classes ouvrières, Book 1.

or B. Meredith, . Economic History of England.

Unwin, . Industrial Organization.
Seebohm, . English Village Community.
Webb, . History of Trade Unionism.

Johnson, . The Disappearance of the Small Landowner.

Ashley, English Economic History.

Rand, . Selections illustrating Economic History, Chaps. 2, 5, 6, 9, 10, 18, 22.

# VI.—Ancient and Modern History.

A. For Candidates in Ancient History :-

Greek and Latin Epigraphy (1 paper), 100 marks.

(Candidates to consult the Professor of Ancient History for particulars.)

B. For Candidates in Modern History :-

English and Irish History, 449-1837 A.D. (1 paper), 100 marks.

(Candidates are referred to the books recommended for the Honor Examinations in English and Irish History in the Freshman Years.)

Candidates for Moderatorship who are members of the Army Class may substitute Military History and Geography for V. Economic History, and VI, Ancient and Modern History.

# Military History and Strategy. (100 marks.)

The General Principles of Strategy in Civilized Warfare.

Candidates will be required to have such a knowledge of all campaigns, since 1750, in which Great Britain has been engaged, and of other campaigns during the same period, as will enable them to deduce from these the strategic lessons they teach, or to illustrate the application of strategic principles to the conduct of war.

Also to know so much of the political causes that led to these campaigns as may have directly affected the strategic operations.

The general scope of this paper is indicated by the following works:-

Hamley's "Operations of War."

James' "Modern Strategy."

Any recognized work dealing with campaigns subsequent to the Russo-Japanese War of 1904-5.

Any recognized work dealing with British campaigns.

# Military Geography. (100 marks.)

Candidates will be required to have such a knowledge of the influence on strategy of geography as is indicated in the following works:—

May's "Introduction to Military Geography." Maguire's "Military Geography."

Notice of Candidature, with Courses chosen, must be given to the Senior Lecturer on or before June 15th.

# MODERATORSHIPS IN MODERN LITERATURE.

The subjects of Examination are-

I. English Language and Literature.
II. French Language and Literature.

III. German Language and Literature.

The successful candidates will be arranged in two separate lists:—

(1) English and one foreign language;

(2) French and German;

and the languages in which they have competed will be marked on the lists, and on the medals they obtain. The candidates in (2) will be required to answer in essays in English on French and

German subjects to show their competence in English.

All Candidates must present themselves in any two, and two only, of the sections, English Language and Literature, French Language and Literature, German Language and Literature. They must inform the Senior Lecturer before the end of Trinity Term in what two sections they intend to compete.

The proficiency of Candidates will be tested by papers and oral Examination as well as by Composition in the languages which

they have chosen.

The Courses in the several Departments are as follows:--

I .- English Language and Literature.

The History of English Literature: based upon the study of such works as Courthope's History of English Poetry (6 vols., Macmillan), and the more important authors in the five vols. of Craik's English Prose Selections.

Literary Criticism: as represented by— Aristotle's Poetics: English translation.

Sidney: Apology of Poetry.

Dryden: Essay of Dramatic Poesy; Preface to the Fables.

Addison: Critical Essays from the Spectator.
Johnson: Lives of Milton, Dryden, Pope.
Coleridge: Lectures on Shakespeare.
Dowden's Mind and Art of Shakespeare.
Macaulay: Essay on Moore's Life of Byron.
M. Arnold: Critical Essays.

Chaucer: as in Undergraduate Course.

Langland: Piers Plowman.

Shakespeare: as in Undergraduate Course.

Marlowe: Tamburlaine; Edward II.

Lamb's Specimens of English Dramatic Poets (not including the Garrick Plays).

Milton: as in Undergraduate Course.

Palgrave's Golden Treasury.

II.—French Language and Literature.

The subjects for examination are divided into Four Groups. Of these, the first two are compulsory. Each candidate must, in addition, take either the third or the fourth group at his option.

Note.—Candidates are expected to make themselves acquainted with the outlines of the History of France in so far as it bears on the work prescribed. The Four Groups are as follows :-

# GROUP I (Compulsory).

1. Translation from English into French.

Translation into English of Unprepared Passages of French.
 An Essay in French on one of several literary subjects proposed.

4. (a) Grammar of Modern French, including Phoneties,

(b) Outlines of the Historical Development of the French Language.
(c) Outlines of the Historical Development of French Versification.

Note.—Separate papers on Section (4), sub-sections (a), (b), and (c), will be set for Candidates taking Group IV.

GROUP II (Compulsory).

Selected Authors and Texts of the Sixteenth, Seventeenth, and Eighteenth Centuries (as below).

# GROUP III (Optional).

Selected Texts of the Nineteenth Century (as below).

GROUP IV (Optional).

(a) A more detailed knowledge of the History of the French Language up to the end of the Fifteenth Century.

(b) A detailed knowledge of the dialects of Old French up to the end

of the Thirteenth Century.

Balzac:

Barrès:

(c) Selected Medieval Texts (as below).

### PRESCRIBED BOOKS.

### GROUP II.

Candidates must show a first-hand acquaintance with the principal works of-Ronsard, Racine, Molière, and Corneille.

They will also be examined in:-

Voltaire: Choix de Lettres (Brunel—Hachette). Voltaire: Extraits en Prose (Brunel—Huchette).

Diderot : Extraits (Texte-Hachette).

Selections from the French Lyric Poets of the Seventeenth Century (Manchester University Press).

GROUP III.

Brunetière: L'Evolution de la Poésie lyrique en France.

H. de Balzac. Le Curé de Tours.

Le Cabinet des Antiques.

Eugénie Grandet. Colette Baudoche.

Le Voyage de Sparte. La Colline Inspirée.

Leconte de Lisle: Poèmes Antiques.

Poèmes Barbares. Poèmes Tragiques.

Musset: As for the Senior Freshman Course.

V. Hugo: Les Contemplations.

Sainte-Beuve: As for the Junior Freshman Course.

Banville: Florise.

L. de Cardonnel: Poèmes, Carmina Sacra.

Huysmans: La Cathédrale.

# GROUP V.

(a) (b) Brunot: Histoire de la Langue Française (Colin), vol. i.

(c) La Vie de Saint Alexis (in Champion's Classiques Français du Moyen-Age).

Le Pélerinage de Charlemagne (Karls des Grossen Reise nach Jerusalem, ed. Koschwitz, pub. Reisland, Leipzig). La Chanson de Roland (in Mudie's Bibl. Romanica).

Gormund et Isembard (in Champion's Classiques Français du Moyen-Age).

La Chastelaine de Vergi (same series).

Adam le Bossu: Le Jeu de la Feuillée (same series).

Aucassin et Nicolette (ed. Suchier-Counson, published Schöningh, Paderborn).

Villon: Lais et Testament (in Champion's Classiques Français du Moyen-Age).

Courtois d'Arras (in Champion's Classiques Français du Moyen-Age).

The distribution of Papers and allotment of Marks will be as follows:-

GROUP I.	(1) One hour and	a half,	75 marks.	
	(2) One hour and	a half,	50 marks.	
	(3) One hour, (4) Two hours, Three hours,		50 marks.	
	(4) Two hours,		75 marks.	
GROUP II.	Three hours,		100 marks.	
GROUP III.	Three hours,		100 marks)	-14
GROUP IV.	Three hours,		100 marks	alternatively.
VIVA VOCE,	tree to project to the		50 marks.	
•				
	T	otul. "	500 marks	

# III .- German Language and Literature.

The subjects for examination are divided into Four Groups. Of these, the first two are compulsory. Each candidate must in addition take either the third or the fourth group at his option.

Note.—Students are expected to make themselves acquainted with the outlines of the History of Germany in so far as it bears on the literary period studied in each term.

# GROUP I (Compulsory).

- 1. Translation from English into German.
- 2. Translation into English of Unprepared Passages of German.
- 3. An Essay in German on one of several literary subjects proposed.
- 4. (a) Grammar of Modern German, including Phonetics.
  - (b) Outlines of the Historical Development of the German Language.
- (c) Outlines of the Historical Development of German Versification.

Note.—Separate papers on Section 4 (a), (b), and (c) will be set for candidates taking Group IV.

GROUP II (Compulsory).

Selected texts (as below).

GROUP III (Optional).

 A more detailed knowledge of the History of German Literature in the Eighteenth and Nineteenth Centuries.

2. Texts selected from the above period (as below).

# GROUP IV (Optional).

1. Philology of the German Language.

2. Grammar of Old English.

3. Selected Medieval Texts (as below).

# PRESCRIBED BOOKS.

GROUP I., . Kauffmann: Deutsche Metrik. Weise: Unsere Muttersprache.

GROUP II., . Walther von der Vogelweide: Gedichte. Der Nibelunge Nôt (Sammlung Göschen 1).

Kudrun und Dietrich-Epen in Auswahl (Sammlung Göschen 10).

Gosenen 10).

Hartmann von Aue, Wolfram von Eschenbach und Gottfried von Strassburg (Sammlung Göschen 22). Freytag: Bilder aus der deutschen Vergangenheit.

Vol. i.

GROUP III., . Lessing: Minna von Barnhelm, Emilia Galotti; die Hamburgische Dramaturgie.

Goethe: Lieder, Balladen, Vermischte Gedichte; Götz von Berlichingen, Iphigenie auf Tauris, Faust. Schiller: Balladen, philosophische Gedichte; Wallen-

stein, Die Braut von Messina, Wilhelm Tell. Kleist: Der Zerbrochene Krug, Prince Friedrich von

Homburg.

Grillparzer: Die Ahnfrau, König Ottokars Glück und Ende, Der Traum, ein Leben.

Hebbel: Agnes Bernauer, Die Nibelungen.

GROUP IV., . Wright: Historical German Grammar.

Wright: Gothic Grammar.

Braune: Abriss der althochdeutschen Grammatik. Sievers: Abriss der angelsächsischen Grammatik.

Sweet: Anglo-Saxon Reader (Prose Extracts).
Braune: Althochdeutsches Lesebuch.

Wyld: Historical Study of the Mother Tongue.

The Distribution of Papers and allotment of Marks will be as follows:—

GROUP I. (1) One hour and a half, 75 marks.

(2) One hour and a half, 50 marks. (3) One hour, . . 50 marks.

GROUP III. Three hours, . . 100 marks alternatively.

VIVA VOCE, 500 marks. 500 marks.

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Notice of Candidature, with groups chosen, must be given to the Senior Lecturer on or before June 15th.

### MODERATORSHIPS IN LEGAL AND POLITICAL SCIENCE.

The subjects of examination, and the marks to be assigned to the several subjects are as follows:—

I. Roman Law: one paper (120 marks).

Candidates will be examined in the Course of Roman Law prescribed for Honors in the Junior Sophister year, together with a special portion of the Digest. In 1919, and until further notice, the portion will be—Book ix, Title 2 (Ad Legem Aquiliam).

- II. Jurisprudence and International Law: one paper (100 marks).
  - (a) Jurisprudence.

Analytical and Historical Jurisprudence, as appointed in the Sophister Honor Courses.

(b) International Law.

The Course of International Law appointed for the Honor Examinations of the Junior Sophister year, to be studied in greater detail in one of the larger text-books (e.g. 'Hall's International Law'), together with a special topic of International Law. In 1914, and until further notice, this topic will be 'The Law of Contraband and Blockade.'

(c) Private International Law.

The general principles of the subject.
[Westlake, 'Private International Law.']

III. Constitutional History and Law, and Legal History: one paper (120 marks).

The Junior Sophister Honor Course studied in greater detail, together with the leading features of English legal institutions.

[Medley, English Constitutional History. Anson, Law and Custom of the Constitution. Carter, History of English Legal Institutions.]

IV. Law of Property and Equity; General: one paper (120 marks).
The leading features of the Law of Property and the Principles of Equity, as treated in the Sophister Honor Courses.

V. Law of Property and Equity; Special: one paper (100 marks).

In 1919, and until further notice, the subjects will be (a) Easements, (b) Guarantee and Suretyship.

VI. The Law of Obligations: one paper (120 marks).

The Law of Contract and Torts, as appointed for the Sophister Honor Courses.

VII. Criminal Law and the Law of Evidence: one paper (100 marks).

The Law of Evidence, as appointed for the Junior Sophister Honor Course, together with the general principles of Criminal Law.

[Stephen, Digest of Criminal Law. Kenny, Cases on Criminal Law. Parts 1, and 11.]

VIII. Political Science: one paper (100 marks).

In addition to the general course prescribed for Honors in the Sophi-ter years, Candidates will be required to show acquaintance with the general principles of Politics; the structure, functions, and development of the State; and the history of political theories, together with a prescribed text. In 1919, and until further notice, the prescribed text will be "The Federalist," Letters 1-XXXVIII, inclusive.

IX. Economics: one paper (120 marks).

In addition to the general course prescribed for Honors in the Junior Sophister year, the subjects of Currency, Banking, Foreign Trade, and Socialism are appointed for special study:—

Taussig, Principles of Economics. E. C. K. Ensor, Modern Socialism. Dunbar, Theory and History of Banking; Clare, Money-Market Primer;

Notice of Candidature must be given to the Senior Lecturer, on or before June 15th.

# MODERATORSHIPS IN ENGINEERING SCIENCE.

Candidates whose names are on the Register of the Engineering School may, at the close of their Senior Sophister year, compete

for Moderatorships in Engineering Science.

The Course for these consists of the general Courses arranged for the Experimental Science Moderatorship, and one of the following three Courses (in place of the Special Course in either Physics or Chemistry, as required for the Experimental Science Moderatorship):—

 Civil Engineering and Materials used in Construction, as lectured on by the Professors of Civil Engineering and Geology.

II. Electrical and Mechanical Engineering, as lectured on by the Erasmus Smith Professor of Experimental Science, the Lecturer in the Practice of Electrical Engineering, and the Lecturer in Mechanical Engineering.

III. Geology, Petrology, Mining, and Mineralogy, as lectured

on by the Professor of Geology.

This Special Course includes Practical work in the Laboratories of Mechanical Engineering, Electrical Engineering, or Geology, according to the Course selected.

Notice of Candidature, with Courses chosen, must be given to

the Senior Lecturer on or before June 15th.

# MODERATORSHIPS IN CELTIC LANGUAGES.

# (a) Irish Texts-

The Würzburg Glosses.

Táin Bó Cúainge (ed. Strachan and O'Keeffe, supplement to Érin).

Fled Brierend.

Tri Bhir-Ghaoithe an Bháis.

Imram Brain.

- (b) Comparative Grammar of the Celtic Languages.
- (c) Composition in Irish.
- (d) Irish Metric.
- (e) Elements of Palæography.
- (f) Joyce: Social History of Ancient Ireland.

Rhys: Celtie Britain.

(g) Welsh Texts-

Strachan, Introduction to Early Welsh, the Reader (omitting vii, viii, and ix);

Breuddwyt Maxen; Branwen veirch Lyr.

# The marks are assigned in the following scale:-

1. Old and Middle Irish Tex	ts,		44	1.9/97		350
2. Comparative Grammar,					1,29	150
3. Welsh Texts,	Blue .	4.00	1 de 1	****	· Liga	150
4. Joyce's and Rhys' books,	as abov	e,				150
5 Modern Trish (texts com	nosition	and vis	a mace			200

Notice of Candidature must be given to the Senior Lecturer on or before June 15th.

# Lectures.

THE Lecturing Staff in the University of Dublin consists of the Junior Fellows and Professors.

Lectures are delivered in all the Courses by which Terms may be kept in Arts, or in which Honors can be obtained at the Term Examinations, in the subjects which are studied in the Professional Schools, and in various other departments of knowledge.

LECTURES IN ARTS WHICH COUNT TOWARDS THE KEEPING OF TERMS.

#### ORDINARY AND HONOR LECTURES.

Mathematics, Mathematical Physics, Classics, Mental and Moral Philosophy, and Experimental Physics.—Lectures in the above subjects are delivered by the Tutor Fellows to the Students in Arts, at hours announced in each Term.

Special Lecturers are selected to lecture Candidates for Honors in Mathematics, Mathematical Physics, Classics, and Mental and Moral Philosophy.

Legal and Political Science.—Special Lecturers are selected to lecture Candidates for Honors in this subject.

Chemistry.—The following Courses of Lectures are delivered:—First year: (1) a Course on General Elementary Chemistry, three days a week, during Michaelmas and Hilary Terms; (2) a Course of Honor Lectures, once a week, supplementing the above. Second year: a Course of Honor Lectures on Inorganic Chemistry, once a week, during the three Terms. Third year: (1) a Course of Honor Lectures on Organic Chemistry, twice a week, during the three Terms; (2) a Course of Honor Lectures on Physical Chemistry, once a week, during the three Terms. Fourth year: occasional Honor Lectures on Inorganic, Organic or Physical Chemistry, according to the subject selected by Candidates for Moderatorship for Specialisation.

Practical Chemistry.—Instruction is given in the Laboratory in all branches of Pure and Applied Chemistry, and facilities are provided for research.

Botany, Zoology, and Geology.—The Professor of Botany lectures Junior Sophisters upon three days in each week during six weeks of Michaelmas and of Hilary Terms. The Professor of Zoology lectures during the same period upon alternate days with the Professor of Botany. The Professor of

Geology and Mineralogy lectures Senior Sophisters during the same period. In Michaelmas and Hilary Terms Demonstrations are given to Honor Students in Arts: in Botany, by the Professor of Botany, and in the Anatomy of the Invertebrates, by the Professor of Comparative Anatomy. Each of the Professors of Botany and of Zoology gives a Course of Demonstrations in Trinity Term. In Michaelmas Term the Professor of Geology and Mineralogy gives a second Course of Lectures on Mineralogy and Petrology.

French.—Honor Lectures are delivered by the Professor of Romance Languages to Senior Sophisters, Junior Sophisters, Senior Freshmen, and Junior Freshmen. Lectures in the Ordinary Course are delivered by the Tutors, assisted, when the numbers require it, by a special lecturer appointed by the Board.

German.—The Professor of German lectures Senior Sophisters on three days per week, Junior Sophisters on three days per week, and also lectures the Senior and Junior Freshmen.

#### LECTURES FOR CANDIDATES FOR MODERATORSHIPS.

Mathematics and Mathematical Physics.—Erasmus Smith's Professor of Mathematics delivers Lectures on three days in each week. The University Professor of Natural Philosophy delivers Lectures on three days in each week; the days and hours are fixed at the commencement of each Term.

Classics.—The Professor of Greek delivers Lectures on Tuesdays, Thursdays, and Saturdays, during Term. The Professor of Latin delivers Lectures on Mondays, Wednesdays, and Fridays, during Term. The Professor of Ancient History and Classical Archæology lectures during Term, on days of which public notice is given. The Professor of Sanskrit lectures on Comparative Grammar, on two days in each week, during Term.

Mental and Moral Philosophy.—The Professor of Moral Philosophy delivers Lectures during Term, of which public notice is given. Lectures are also delivered to the Senior Sophister Class by one of the Honor Lecturers in Mental and Moral Philosophy.

Experimental Science.—Candidates may attend the Lectures of the Professors of Experimental Philosophy, and of Chemistry. In Experimental Physics, the Honor Lectures of the Assistant may be substituted for the ordinary Lectures of the Professor. Notice of the days and hours of these Lectures is given at the commencement of each Term. Candidates for Moderatorships in Experimental Science are entitled to attend the Laboratory of the Professor of Chemistry, from the 1st of November to the 30th of June, on payment of three guineas to the Junior Bursar.

Natural Science.—Candidates may attend the Lectures and Demonstrations of the Professors of Botany and of Zoology. In Trinity Term the Professor of Geology and Mineralogy gives Demonstrations to Candidates for Moderatorships in Natural Science.

History and Political Science.—The Professor of History lectures in each week during Term. The Professor of Political Economy lectures in each Term on General Economics. Lectures are also given for Honor and Moderatorship Candidates on (1) Economic Theory, (2) Economic History.

Lectures on Political Science are delivered twice weekly during

Lecture Term.

Modern Literature.—Candidates may attend the Lectures of the Professor of English Literature, of the Professor of the Romance Languages, and of the Professor of German. In Trinity Term, the Professor of German gives Prelections on some subject connected with the Literature of Germany, which are open to the public, and are advertised in the daily papers.

#### LECTURES IN THE PROFESSIONAL SCHOOLS.

An account of these Lectures will be found in the sections dealing with each School. Lectures connected with the Professional Schools which are not intended for Professional Students exclusively are also mentioned below under the head "Miscellaneous Lectures," or "Public Lectures."

MISCELLANEOUS LECTURES AND COURSES OF INSTRUCTION.

Astronomy.—The Professor of Astronomy lectures on Mondays and Fridays in Hilary Term.

Experimental Science.—Any Graduate of Dublin University who desires to pursue a post-graduate Course of Instruction in the Physical Laboratory shall be permitted to do so on payment of six guineas for a Course extending over three Terms. (Register, May 9, 1903.)

Extern Students may be admitted to the Laboratory Courses on the following conditions:—

The name should in each case be recommended by the Professor.

The fee for a nine months' Course should be £10 10s., half to be paid to the Cista Communis, and half to the Professors or Examiners of whose aid the Student should avail himself.

The number so admitted is to be so restricted as not to interfere with the education of the College Students. (Register, June 17, 1904.)

Fees for the Chemical Laboratory—Students on the College books pay (a) for Ordinary Course, one guinea a Term for one half day a week, or two guineas a Term for three half days a week; (b) for Honor Course in Freshman years, one guinea a Term for one half day a week, or two guineas a Term for three half days a week; (c) for Honor Course in Sophister years, one guinea a Term for three half days a week, or two guineas a Term for more than three half days a week, provided that the total fee for the Moderatorship Course shall not be less than twelve guineas, nor more than eighteen guineas; (d) for all other Courses, one guinea a Term for one half day a week, or two guineas a Term for three half days a week, or three guineas a Term for more than three half days a week. (A Medical or Engineering Student whose Professional Fee covers a Course in Practical Chemistry in any Term, and who wishes to do more work in the Laboratory, pays a half fee for such additional work in that Term.)

Graduates working for Sc.B. pay two guineas a Term.

Graduates of any approved University not on the College Books (working for the Sc. B. Degree), pay £3 10s. a Term.

Pharmaceutical Students pay five guineas for 100 hours.

All other Students pay two and a half guineas a Term for one half day a week, or three and a half guineas a Term for three half days a week, or four and a half guineas a Term for more than three half days a week.

Masters in Science.—Candidates for the Degree of Master in Science may work in the Laboratories under the Professor's supervision at a fee of £5 for the year, including the use of the ordinary Laboratory apparatus and material. If special apparatus be required, application should be made, supported by the Professor.

Political Economy.—The Professor of Political Economy delivers a Course of at least nine Lectures during some one of the three Academical Terms, which are free to all Students.

English Literature.—The Professor of English Literature delivers Lectures on three days in the week during Term.

Hebrew Lectures. —All Students are permitted to attend Hebrew Lectures. The Professor of Hebrew delivers public Prelections from time to time as required by the Rules of Erasmus Smith's Board, and, in addition, lectures the Senior Class. Due notice of the hours at which these Lectures are held is given at the beginning of each Term. The Lectures of the Assistants are delivered on Tuesdays and Thursdays, at nine o'clock. For the regulations and subjects of these Lectures, see below, Divinity School, § v.

Irish.—The Professor of Irish lectures on two days in the week during Term. The Students attending these Lectures are divided into three Classes—Junior, Middle, and Senior. The Lectures to

the First Class are elementary; those to the Middle and Senior Classes are intended for such Students as have made some progress in the Irish Language. Notice of the days and hours of Lecture is given at the beginning of each Term.

The Examination for Prizes is held in Trinity Term. For the

regulations of the Examination, see under "Prizes in Irish."

Sanskrit.—The Professor of Sanskrit teaches such Students as may present themselves for instruction, at the commencement of each Term, at the rate of three guineas per Term.

#### PUBLIC LECTURES.

The following Lectures are open to the public, as well as to all Students:-

### The Prelections of-

The Professor of German.

The Regius Professor of Divinity.

Archbishop King's Professor of Divinity.

The Professor of Hebrew.

The Professor of Biblical Greek.

The Regius Professor of Laws.

The Regius Professor of Feudal and English Law.

# The Lectures of-

The Professor of Astronomy.

The Professor of Ancient History.

The Professor of Moral Philosophy.

The Professor of Geology and Mineralogy. The Professor of Ecclesiastical History.

The Professor of Irish.

The Professor of Comparative Anatomy to Medical Students.

# Four Lectures of -

The Professor of Natural and Experimental Philosophy.

The Professor of Oratory.

# DONNELLAN LECTURES.

The Donnellan Lecture was founded by the Board on February 22, 1794, in order to carry out the intentions of Mrs. Anne Donnellan, of the parish of St. George, Hanoversquare, County Middlesex, spinster, who bequeathed £1243 to the College "for the encouragement of religion, learning, and good manners; the particular mode of application being left to the Provost and Senior Fellows."

The regulations originally drawn up by the Board with respect to this Lecture have been altered from time to time, so that they are now as follows:—

The appointment of the Lecturer is made by invitation of the Board, one year in advance, on a day not later than the last Saturday in November in each year

The subject is agreed upon by the Board and the Lecturer, and treated of in not less than three Lectures, which are delivered in one of the public Halls of the College.

The salary of the Lecturer consists of the interest on £1200 for one year, amounting to about £52, and is paid to him, after he shall have delivered the whole number of Lectures, by the Bursar, at such times and in such sums as the interest is received.

# Election to Fellowship and Scholarships.

The rules determining the conditions of election to Fellowship are set forth in Chap. VII. of the College Statutes, and have been modified by the following Ordinances:—

#### ORDINANCE.

# [July 16, 1919.]

WHEREAS by Letters Patent, 1 George V., sect. 29, the power of varying the mode of election to Fellowship, and the condition of tenure of Fellowships by Fellows hereafter elected, was vested in and exercisible by the Board of Trinity College subject to certain consents.

It is hereby ordained by the Board of the said College, with the assent in writing of a majority of the Fellows, and the approval of the Visitors, that the Board of the said College may, if they think it advisable so to do, elect a Fellow in Mathematics in the year 1920, and that in making such election they shall take into account such evidences of learning and fitness as shall to them seem proper.

# ORDINANCE EMPOWERING THE BOARD TO ELECT FELLOWS WITHOUT EXAMINATION.

# [March 29, 1916.]

It is ordained by the Board of Trinity College, Dublin, with the written assent of a majority of the Fellows and the approval of the Visitors, that election to Fellowship may be made by the Board as may to them seem advisable in the interests of the College, not oftener than once in three years, after an estimate of the merit of candidates without examination, such candidates to be otherwise qualified according to the statutes: provided always that Fellows so elected shall have priority on the Roll of Fellows according to priority of election: and that for the purpose of giving effect to this ordinance the following rules shall be adopted and published, that is to say:—

Not oftener than once in three years a Fellowship may be awarded on grounds of distinguished merit, as shown primarily by the candidate's published work: provided always that no person shall be elected to such a Fellowship without the assent of a majority of the Fellows. In regard to such elections the Board shall announce beforehand what subject or subjects will be regarded as most important, and shall be guided by the requirements of the College at the time, and assisted by the report of a committee to be appointed by the Board to advise the Board upon the merits of the candidates. On this committee experts additional to those upon the College staff may be invited to serve. A candidate shall be selected by the Board after they have considered the report of the Committee, and the Board shall elect as soon as the required assent of the majority of the Fellows has been obtained.

#### EXAMINATION FOR FELLOWSHIP.

THE following Regulations have been adopted by the Board, relative to the Examinations for Fellowships:—

The marks for Classics are arranged as follows :-

			0						Total.
Four Papers of Passa;	ges	,		4.					. 280
Four Compositions,									
Two Critical Papers,			•	٠.				 9.	60
Essay,									
Paper in Ancient His	tor	у,							85
Paper in Philology,									
Four vivâ-voce Exan	in	atio	ons	(25	ea	ch	,		100
									800

The Examiners in the several Courses are required to report to the Board, whether, in their opinion, the answering of each Candidate is such as to entitle it to be taken into account in a final comparison of the answering in all the Courses.

Before the day of election every Candidate for Fellowship must send to the Provost his name, and the name of the county in which he was born.

The Examination for Fellowship begins on the Monday before Ascension Day. The programme of the days and hours of the Examination will be published early in Trinity Term.

The vivâ voce Examination of every Course is open to the public

Candidates for Fellowship are required to give notice of their intention to compete, and of the subjects in which they propose to answer, not later than the 1st of February preceding the Examination.

On June 21, 1919, the Board decreed, with the consent of the Visitors, that there shall be no Examination for Fellowship in 1920.

# FOUNDATION SCHOLARSHIPS.

Men are elected to Scholarships for merit in Classics or in Mathematics or in Experimental Science or in Modern Languages or in Natural Science or in History and Political Science. In order to distinguish them from the holders of other Scholarships, they are termed Scholars of the House, or Scholars on the Foundation. The number of such Scholars is seventy, and they have important privileges. They receive from the College an annual salary of £20 Irish money; they have their commons free of expense, and their rooms for half the charge paid

by other Students. The tuition fees of Pensioners who are elected to Scholarships is one guinea per quarter, and of Fellow-Commoners, two guineas. They hold their Scholarships until the end of the June Quarter of the fifth year following their election, or following the time at which they become or might have become Masters of Arts, whichever period terminates first. All fees payable by Scholars for Tuition terminate after the quarter in which they take the Degree of Bachelor of Arts.

# Exhibitions awarded to Scholars.

Any Scholar who has not dropped a Class after the Michaelmas Examination of his Junior Sophister year, nor dropped more than one Class, and who obtains a Senior Moderatorship at the Degree Examination, and does not obtain one of the Studentships, is awarded one of certain Exhibitions of small value, to which Students are appointed by the Board, if such be then vacant, and such further Exhibition as shall raise the entire annual value of his Exhibition to £10. The Exhibition is tenable for three years, provided the holder's Scholarship lasts so long.

# Waiterships.

Before and after meat, grace was formerly said by certain of the Scholars in turn, who were called *Waiters*. This obligation was done away with by the Act 36 Victoria, chapter 21.

Ten Scholars, or other Students, are now annually appointed to say grace before and after meat in the Commons Hall, on the

following conditions:-

- 1. They shall each receive a salary of £10 per annum, to be paid quarterly, if the duty has been satisfactorily discharged.
- 2. They shall be annually selected by the two Deans, and the rames of those selected shall be submitted to the Board for appointment to the office.
- 3. Regard shall be had, in the selection, to the general character of the Student for regularity, steadiness, and general good conduct, as such qualities are the best security that the duties of the office will be properly discharged.

The grace must be repeated memoriter and in Latin, in a form prescribed by the Statutes of the College.

# Keeping of Terms by Scholars.

The following Rules have been passed by the Board, with regard to the attendance by Scholars at Lectures:—

I. Graduates.—All Scholars who have actually passed the B. A. Degree Examination are exempted from suspension for non-attendance at Lectures.

This does not apply to that portion of the rent imposed to defray expenses incurred in papering or painting.

- II. Undergraduates,—1. Every Undergraduate Scholar shall be required to keep each Term, by attendance either at Lectures, or the subsequent Examination, on pain of being conditionally suspended.
- 2. Full attendance on the Lectures of the University Professors, such as would prove that an Undergraduate Scholar is engaged bonâ fide in preparation for the Moderatorship or Indian Civil Service Examinations, or in professional studies, shall be held sufficient to exempt him from suspension for that Term.
- 3. Any Undergraduate Scholar who shall have been conditionally suspended under the foregoing rule shall be restored on obtaining an Honor at a subsequent Examination.
- 4. Any Undergraduate Scholar who shall remain conditionally suspended for three Terms shall absolutely forfeit his salary for the past year, unless he shall produce to the Board satisfactory excuses for his neglect.
- 5. No student can compete for a Scholarship until after his name has been entered on the College books as a Junior Freshman, i.e. he cannot compete as a rising Junior Freshman. (See "Course in Arts," § 5.)
- 6. Any Scholar who shall fail to keep the Terms and Examinations necessary to enable him to proceed with his Class shall ipso facto forfeit his Scholarship, and no Scholar can have his name transferred to a lower Class without the express permission of the Board.

### NON-FOUNDATION SCHOLARSHIPS FOR WOMEN.

As the Foundation Scholarships in Trinity College are tenable only by men, and it was desirable that Scholarships should be established for women:

It was decreed by the Board, with the approval of the Council and the consent of the Visitors, in Michaelmas Term, 1904:

- I. That Scholarships shall be established for women.
- II. That, with the approval of the Council, the subjects of Examination for such Scholarships shall be the same as for the Foundation Scholarships hereinbefore mentioned, and that the Examinations for both shall be held at the same time and place.
- III. That the value of such Scholarships shall be £30 a year, with exemption from ordinary College Fees, save the Tuition Fees of one guinea per quarter for which the Foundation Scholars are at present liable.
- IV. That the period of tenure of such Scholarships, and the period during which the Tuition Fees shall continue to be payable, shall be the same as in the case of the Foundation Scholarships.

## Mode of Election.

1. On or before the day of election every Candidate for Scholarship must send to each member of the Board or to the Registrar, his name, and the name of the county in which he was born. The form in which this is generally done is as follows:

Ego, A.B. —— filius, natus in comitatu N., sub ferula —— educatus, Discipulatum a te humillime peto.

- 2. The Examination for Scholarships is held on such days, not being less than four in number, in the seven week days preceding the commencement of Lectures in Trinity Term, as the Board shall fix and promulgate, at least ten months beforehand.
- 3. Candidates for Scholarships in Mathematics are examined in all the Pure and Applied Mathematics of the Undergraduate Honor Course for which a Junior Sophister Student would have been liable from his entrance up to the Trinity Examination of the Junior Sophister year inclusive. In the Examination equal weight is assigned to Pure and to Applied Mathematics.

4. Candidates for Scholarships in Experimental Science are examined in the Honor Courses in Experimental Science for the Junior and Senior Freshman years, and for the Hilary and Trinity Honor Examinations of the Junior Sophister year.

Examination Papers are set in (a) Mathematics, (b) Experimental Physics, (c) Chemistry, and a Practical Examination is held in both Experimental Physics and Chemistry; 100 marks each are allotted to (a), (b), and (c), and 50 marks to each of the two Practical Examinations.

The Course in (a) Mathematics is based on the Course in Experimental Physics extending so far as is necessary for the proper study of Experimental Science, and including Elementary Analytical Geometry, Elementary Differential and Integral Calculus, a knowledge of the simple harmonic function, Mechanics, Hydrostatics, and Geometrical Optics.

5. Candidates for Scholarships in Classics are examined in all the Classics of the Undergraduate Honor Course for which a Junior Sophister Student would have been liable from his entrance up to and including the Trinity Examination of the Junior Sophister year. The Course for vivâ voce Examination is as follows:—

Greek Prose Authors, . . Plato: Gorgias.

Demosthenes: De Corona. Thucydides: Book vii.

Greek Poets, . . . Homer: Iliad, Books xxI., xXII., xXIII.,

XXIV. Homer: Odyssey, Books vi., ix., XXI.,

XXII.

Sophocles: Ajax, Antigone, Philoctetes. Euripides: Medea, Bacchae, Troades.

Latin Prose Authors,	. Livy: Books xxt., xxtt. Tacitus: Histories, Books 1., 11.
Latin Poets,	Virgil: Aeneid VII., VIII., IX. Horace. Terence: Adelphi, Phormio. Plautus: Trinummus, Captivi. Juvenal: Satires, I., III., IV., VIII., VIII., X., XIII., XIV.

They are also examined in Greek and Latin Composition, in English Composition, and in Greek and Roman History. The Course in History until further notice will be:—

Together with the lectures of the Professor of Ancient History and Classical Archæology in Ancient History and Classical Archæology during the two academic years preceding each examination.

The Vivâ Voce Course is divided among eight Examiners. Greek and Latin Verse Composition are both compulsory subjects. The numbers assigned as marks to the various subjects of Examination are as follows:—

						Marks
4 Papers of Passa	ges,					60
8 Marks for Vivâ	Voc	e,				80
4 Greek and Latin	n Co	mposi	tions	, .		60
English Essay on	Cla	ssical	subje	et,		15
Critical Paper,						20
Historical Paper,	٠.	٠, ،				35
						270

The subjects of Examination for Scholarships in Classics at the several hours are arranged as follows:—

Greek Prose Authors (with wind

a half); Latin Verse Composition

(one hour and a half).

FIRST DAY,	concurrently).	0000
	Afternoon, . Greek Poets (with viva voce	con-
	currently).	
SECOND DAY,	Morning, Latin Prose Authors (with vivâ concurrently).	voce
	Afternoon, Latin Poets (with viva voce of	on-
	/ Morning, Historical Paper (three hours).	
THIRD DAY,	Afternoon, . English Essay on a Classical sub (one hour); Critical Paper (	
	hours).	
	Morning, . Greek Prose Composition (one hand a half); Greek Verse Comption (one hour and a half).	
FOURTH DAY,	Afternoon, . Latin Prose Composition (one hour	and

H 2

7. Candidates for Scholarships in Modern Languages are required to compete in both French and German. In French they will be examined in all the works of Corneille, Racine, Molière, Hugo, and Balzae prescribed in the Undergraduate Honor Course up to and including the Trinity Honor Examination for Junior Sophisters, and in German they will be examined in all the books so prescribed, with the exception of Gothic and Old High German.

An English Essay relating to the subjects of the Examination will be required, and will have considerable weight in the Election.

Women candidates for Scholarships in Modern Languages must not have passed the Degree Examination. (Resolution of the Board, March 23, 1907.)

- 8. The examination includes the following subjects:-
  - (a) Prescribed books, as above (see pp. 109-112).
  - (b) French and German Composition.
  - (c) Translation at sight from French and German.
  - (d) An English Essay.
  - (e) A Vivà Voce examination in French and German.

The following is the scheme of papers and marks for this examination, which will be held concurrently with that for Classical Scholarships:—

*	Marks.
First Morning: English Essay,	100
First Afternoon: French and German Translation	
(two papers),	100 + 100
Second Morning: French Composition,	100
Second Afternoon: French Prescribed Books	
(Paper I),	100
(Paper I), Third Morning: French Prescribed Books (Paper	
II), and Viva Voce,	
Third Afternoon: German Prescribed Books	
(Paper I).	100
Fourth Morning: German Composition,	100
Fourth Afternoon: German Prescribed Books	
(Paper II), and Vivâ Voce,	100 + 50
	1000

9. Candidates for Scholarship in Natural Science are examined in the Honor Courses in Natural Science for the Junior Freshman and Senior Freshman Years, and for the Hilary and Trinity Honor Examinations of the Junior Sophister year.

In each of the three Divisions of Natural Science, i.e. Zoology, Botany, and Geology, two papers are set. There is, in addition, a practical examination in each Division. The papers in the

several Divisions and the marks assigned to them are allocated as follows:—

Zoology: Morphology 100; Physiology and Histology 100; Practical 100.

Botany: Morphology 100; Physiology 100; Practical 100.

Geology: Physical Geology 100; Stratigraphical Geology 100; Practical 100.

10. Candidates for Scholarships in History and Political Science are examined as follows:—

Six papers will be set for the Examination, the subjects of which are: -

_			Marks.
1.	General Modern History, 476-1494,		150
II.	General Modern History, 1+94-1815,		200
III.	English and Irish History, 449-1815,		150
IV.	Constitutional History,		200
V.	Economic and Social History, .		150
VI.	Essays upon general subjects related to	the	
	Course,		150
			1000

On Papers I. to V., passages in French and German may be set to test the candidate's capacity for reading Modern Languages.

- 1. General Modern History (476-1494).—\*Previté Orton: Outlines of Mediæval History. \*Bryce: Holy Roman Empire. Curtis: Roger of Sicily. Philippe de Comines: Mémoires. Lavisse et Rambaud: Histoire générale, vol. i., chaps. 4 and 13; vol. ii., chap. 15; vol. iii., chap. 16. Henderson: Select Documents of the Middle Ages, pp. 169-439.
- II. General Modern History (1494-1815).—\*Last three volumes of the "Six Ages of European History" (Ed, A. H. Johnson). Gardiner: Thirty Years' War. Johnston: History of the French Revolution. Rose: Napoleonic Studies. Lavisse et Rambaud: Histoire générale, vol. iv., chaps. 10, 11, and 12; vol. vol. vol. et ap. 1; vol. vi., chap. 4. Cambridge Modern History: vol. vii., chaps. 3 and 4.
- III. English and Irish History (449-1815)—\*Green: Short History of the English People (latest edition) \*Walpole: Short History of Ireland. \*Oman: England before the Norman Conquest, pp. 186-245. Dunlop: Henry VIII.'s Irish Policy. Innes: Ten Tudor Statesmen Gardiner: History of England (1603-1642), chaps. 9, 10, 18, 75, 76, 81, and 101. Political History of England (ed. Hunt): vols. vii. and x. Burke: Speeches on America. Cambridge Modern History: vol. vi., chap. 14; vol. ix., chap. 22.

- IV. Constitutional History.—\*White: Making of the English Constitution. \*Dale: Principles of English Constitutional History. Medley: Original Illustrations of English Constitutional History. Stubbs: Constitutional History of England, vol. ii., chaps. 14, 15, and 16. Hallam: Constitutional History of England; Middle Ages, chap. 8. May: Constitutional History of England, vol. i., chaps. 1, 2, 5, and 6.
- V. Economic and Social History.—\*Ashley: Economic Organisation of England. \*Meredith: Economic History of England. Seebohm: English Village Community (chaps. 1-5 inclusive). Unwin: Industrial Organisation. Rand: Selections illustrating Economic History. Cambridge Modern History: vol. x., chaps. 23 and 21; vol. xi., chap. i.; vol. xii, chap. 23.
- N.B.—Those books which are marked with an asterisk are especially recommended, the rest may be consulted upon particular points.

# Studentships and Prizes awarded at the Degree and Final Freshman Examination.

#### STUDENTSHIPS.

By the Royal Statute of 22nd Victoria, fourteen Studentships were founded in Trinity College, open to Candidates of all religious denominations, with a salary to be fixed by the Provost and Senior Fellows, not exceeding £100 per annum for each. By this Statute if any person holding a Studentship shall be elected a Fellow, his Studentship shall thereupon become vacant.

By the Royal Letters Patent of May 20, 1889, these Studentships were made tenable for a period not exceeding five years, and

the number was reduced to ten.

The following regulations have been made by the Board, under the authority of the foregoing Statutes, with respect to the election of Students:—

I. Two Students shall be elected annually if sufficient merit is shown, one from the Senior Moderators in Mathematics and one

from the Senior Moderators in Classics.

By the Royal Letters Patent of May 20, 1889, the Provost and Senior Fellows were empowered either to decline to elect to a Studentship, or to award a Studentship of reduced value, in case of insufficient merit: and also to divide the emoluments of a Studentship in cases of equality or closeness of answering between the Candidates.

II. A member of the Board shall preside at each Moderatorship Examination.

III. The results of the Moderatorship Examinations shall be the basis upon which the Board will elect to Studentships, according to the following regulations:—

1. In addition to the primary Courses, Mathematics or Classics, the Board will take into account the answering of the Candidates

in one other Moderatorship Course.

2. Students taking the Mathematical Moderatorship as a primary Course may take up Classics as a secondary Course, and vice versă.

3. The weight to be assigned to the Primary and Secondary

Courses respectively shall be in the proportion of 3 to 2.

4. A minimum shall be fixed for each Course, and the merit of each Candidate shall be measured by the excess of his answering above that minimum. The minimum in each Course shall be one-fourth of the total weight of the Course.

IV. The Examiners in each Course shall make a full report to the Board of the answering of the Candidates, and each Elector shall vote for the two Candidates whose answering, on the whole, shall appear to him the most distinguished; provided there be no objection to such Candidate on the score of moral character or conduct.

V. No person who shall drop more than one class will be permitted to be a Candidate for Studentship.

VI. No person will be permitted to be a Candidate for Studentship who shall have dropped a class after the Michaelmas Examination of his Junior Sophister year.

VII. No change in the mode of electing to Studentships shall be made, unless after a year's previous notice.

VIII. In case any person holding a Studentship shall be elected to a Fellowship of any College in Oxford or Cambridge University his Studentship shall thereupon become vacant.

IX. University Students are required to lecture in the College one hour a day during Term, unless specially exempted by the Board.

## MODERATORSHIP PRIZES.

In addition to the two Studentships which shall be annually filled up, Prizes will be awarded to deserving answerers at the Degree Examination, at the discretion of the Provost and Senior Fellows, in accordance with regulations of the Queen's Letter of the 20th May, 1889.

On December 16th, 1911, the Board resolved :-

That it is desirable in the allocation of the fund annually disposable on the result of the Degree Examination, that such should not be necessarily given to every Gold Medallist, but may, at the discretion of the Board in each year, be given in larger prizes to those students who appear to be specially deserving of assistance for purposes of research or otherwise.

The sum thus awarded in 1918 amounted to £120.

## THE KING EDWARD PRIZE.

On October 17th, 1903, it was resolved by the Board, that in commemoration of the King's visit to Trinity College in July, 1903, a Prize be instituted of the value of £10, to be given each year to that Respondent whose answering shall have been the best amongst those Respondents who shall have answered in the whole Course required at the Degree Examination from students not having any special privilege. Subject to the permission of His Majesty, the Prize to be called "The King Edward Prize."

The approval of His Majesty was conveyed to the Board on

January 16th, 1904,

On January 27th, 1910, it was resolved by the Board, that in future the King Edward Prize shall be awarded only at the Michaelmas Examination for B.A. Degree held in December; and on January 14th, 1911, that Candidates must satisfy the conditions V and VI, above, for Studentships.

#### BROOKE PRIZES.

On the 11th October, 1879, it was resolved by the Board, with the assent of the Misses Brooke:—

That two Prizes, equal in amount, and representing the interest of the sum of £2000 presented by the Misses Brooke, be constituted, to be given annually to the Candidates for Moderatorship who rank next in order, severally, to the Moderators who are appointed Students for Mathematics and for Classics, the Prizes to be called the Brooke Prizes.

The Fund yields annually about £68; the Prizes are payable half-yearly in February and October, by the Bursar.

#### JELLETT PRIZES FOR GENERAL ANSWERING.

THE Rev. John Hewitt Jellett, D.D., late Provost of Trinity College, awarded Prizes for General Answering from 1884 to 1887. In the year 1889 the Rev. George Salmon, D.D., Provost of Trinity College, provided a fund for the payment of these Prizes. The Prizes are awarded under the following Regulations:—

Two Prizes for General Answering are given at the Final Freshman Examination held at the end of the Trinity Term of the Senior Freshman year. No Student is eligible for either of these Prizes who shall be elected to a Senior Exhibition, or who is excluded by the College Rules from competing for a Senior Exhibition. Subject to these exceptions, the Prizes are awarded to the two Students respectively who obtain the highest aggregate of marks at the above-mentioned Examination, provided that this aggregate be not less than 65 per cent. of the total amount of marks obtainable. The Fund produces annually about £8. This is usually divided between the two best answerers in the ratio of 5 to 3, but, in case of equality of merit, the Board may, if they think fit, award a Prize of £4 to each of the two Students.

## Special Prizes.

In the case of all Prizes, the Board reserve the power of diminishing the amount of the Prize, or withholding it altogether, if insufficient merit has been shown by the Candidates, and, in the case of Prizes which are payable out of Special Trust Funds, the amount will further depend on the dividends in hand.

#### MADDEN PRIZE

AND

### PREMIUMS AT THE EXAMINATIONS FOR FELLOWSHIPS.

THE Board, at every Fellowship Examination, grant Premiums to such Candidates as appear to them to deserve encouragement, and in such proportions as they consider merited by the answering.

In the year 1798, Madden's Prizes were first granted according to the conditions specified in the following extract from the codicil to the will of Samuel Molyneux Madden, Esq., dated August 7th,

.1782:--

"Whereas I, Samuel Molyneux Madden, have, in the body of my last will and testament, bequeathed all my estate and property, situated in the Corporation of Belturbet, immediately after the demises therein mentioned, to be employed in promoting virtue and learning in Trinity College, in the County of Dublin, subject to such regulations as I shall exposit and declare in any codicil to my said will. In pursuance of that my design. I do hereby constitute and appoint the three persons immediately hereafter named to be Trustees for the carrying into execution that design. That is to say: The Right Honourable James Lord Viscount Lifford, Lord Chancellor of Ireland, the Most Rev. and Right Honourable Richard Robinson, Primate of all Ireland, and the Right Rev. Richard Woodward, Lord Bishop of Cloyne, humbly entreating those very worth and highly respected persons to vouchsafe their protection and favour to a design so suited to their own excellent dispositions. I do further declare it to be my humble request and desire, that the Vice-Chancellor of Trinity College, for the time being, be one of the Trustees and Governors of the fund to be raised for the design and purpose aforesaid, and that the Lord Primate, for the time being, be also one of the Trustees and Governors of said fund, and to carry into execution my intent and design, as hereinafter mentioned. My will, intent. and request therefore is, that at every Examination for Fellowships in Trinity College, the whole produce of the said fund, during the preceding year, be given, in one undivided sum, into the hand of that disappointed candidate for the Fellowships whom the majority of his Examiners

shall, by certificate in writing under their hand, declare to have best deserved to succeed, if another Fellowship had been vacant. always, that no premium thus provided be given to any disappointed candidate, in any year wherein there shall not be at least two disappointed candidates at the Examination, and also, provided always, that the Provost and Senior Fellows of the College do not diminish the premiums which through their zeal to encourage learning they generously bestow on the disappointed candidates for Fellowships at each Examination. And whereas there are some years wherein there are not any Examinations for Fellowships held, no vacancy having happened in the College, I do hereby desire that the revenue of my estate and fund, in every such year, be laid out in Government securities by my said Trustees, and the interest of such Government securities be added to the succeeding produce of the united fund aforesaid, and thus the premium be increased which shall be given to disappointed candidates in the succeeding years, and I do desire that this premium or bounty be confined to one only disappointed candidate for Fellowship, until the annual revenue of the fund arise to four hundred pounds, after which period the Trustees aforesaid may appropriate the further increase of the fund towards the constituting a bounty for a second disappointed candidate, or rather for a premium for the best Oration or Essay in Latin on such subject as the College shall annually choose, as such encouragement is greatly wanted. And further, in aid to the said intended fund, as the present revenue of the Estate in the Corporation of Belturbet is but £86 rent, I do hereby bequeath to the three Trustees aforenamed all my personal estate of what nature soever, after the death of my most dearly beloved wife, to be by them converted into money, and to be laid out in Government Debentures, and applied to the great end of encouraging virtue and learning in the College, where the youth of the nation are educated, and where most essential service may be expected from their care and patronage, and therefore I do hereby appoint the aforesaid Trustees my Residuary Legatees."

Until the year 1894, the property devised under this will was vested in and managed by individual trustees. By a decree of the Master of the Rolls, dated the 28th day of April, 1894, the Provost, Fellows, and Scholars were appointed trustees of the trust property; and, by Letters Patent, the Board of Trinity College were empowered to hold the lands devised by the will of Mr. Madden. All the trust property is now vested in and managed by the Board of Trinity College. It produces annually about £285, which is paid by the Bursar to the first disappointed candidate after the Fellowship Examination.

## PRIZES IN SUBJECTS CONNECTED WITH THE STUDY OF DIVINITY.

[See also under Divinity School.]

## WALL BIBLICAL SCHOLARSHIPS.

In Michaelmas Term, 1858, the Rev. Charles William Wall, D.D., Vice-Provost, gave to the Provost and Senior Fellows the sum of £2000, for the purpose of founding Biblical Scholarships, in accordance with certain conditions submitted by him to the Board, and approved. Five Scholarships were accordingly founded (to be called "The Wall Biblical Scholarships"), tenable each for five years from the date of election, with a salary of £20 a year, one to be elected annually according to such regulations as the Provost and Senior Fellows shall from time to time enact, in conformity with the wishes of the Founder, as recorded in the Register of the College.

The following is the Course for Examination for the year

1920:-

Kings, Book I, in the Hebrew, Septuagint, Targum, and Peshitta. W. Wright's "Lectures on the Comparative Grammar of the Semitic Languages."

S. R. Driver's "Treatise on the use of the Tenses in Hebrew."

Franz Buhl's "Canon and Text of the Old Testament."

T. H. Weir's "Short History of the Hebrew Text of the O.T."

The following Articles in Hastings' Dictionary of the Bible:—

1. The Septuagint, 2. Syriac Versions. 3. Targums. 4. Language of the Old Testament. 5. Writing.

R. Duval's "La Littérature Syriaque" (Lecoffre).

Chwolson on the Quiescentes (Hodges & Figgis).

The Founder's Essay, "Proofs of the Interpolation of the Vowel-Letters in the Text of the Hebrew Bible."

An easy passage in Syriac (unseen) will be set for translation, and a

passage in English for translation into Hebrew.

The Examination for the present year will be held in Trinity Term, on days arranged at the end of the preceding Hilary Term, after due notice has been received. The names of Candidates must be on the College Books, and their standing, reckoned from Entrance, must be below that of M. A.

Candidates are requested to communicate their names and Collegiate standing to the Professor of Hebrew on or before the first day

of Trinity Term.

The Scholarships are paid quarterly by the Bursar.

#### THE ELRINGTON THEOLOGICAL PRIZE.

At a general meeting of the Clergy and Laity, assembled in Dublin on the 4th day of March, 1837, to consider the best mode of commemorating the virtues, the learning, and the wisdom of the late Right Rev. Thomas Elrington, D.D., Lord Bishop of Leighlin and Ferns, and formerly Provost of Trinity College, Dublin, the following Resolutions were passed:—

"RESOLVED,—That, in the opinion of this Meeting, the conduct of the late highly-respected Bishop of Ferns was uniformly distinguished by an earnest desire and endeavour to do substantial good, without needless display or ostentation; especially by implanting and strengthening in the minds of all with whom he was at any time connected, whether those of future candidates for the ministry, or those of actual Ministers of the Church, or those of the members of the Church in general, a well-founded belief in the truth and doctrines of our Holy Religion, and a steady attachment to its primitive institutions, according to the form of Christianity established in the United Church of England and Ireland.

"That such a monument appears to us most appropriate to his character, and best calculated to do becoming honour to his memory, as shall be formed upon the principle of carrying forward those solid religious benefits which he was indefatigable in promoting during his life; a mode of testifying respect to which this Meeting is more inclined, by a consideration of the excellent personal representation of the late Prelate which

already adorns the College Library.

"That, for the foregoing purpose, it is adjudged desirable to institute an annual Prize for one or more of the best Theological Essays, composed by Bachelors of Arts of Trinity College, Dublin, of not more than three years'

standing.

"That the subject of the Essays be such as may direct the minds of the competitors to those topics in particular which were either discussed in the published works of the late Bishop, or were prominent objects of his solicitude; for example, the Evidence of our Holy Religion—the Constitution of the Christian Church—the Scriptural Character of the Doctrines, and the Apostolical Polity of our own Church—the necessity and validity of her Orders—and the just Claims and the solemn Engagement of her Ministers.

"That this Prize be denominated The Elbington Theological Prize; that the subjects be proposed, and the Prize awarded, by the Lord Bishop of Ferns, the Provost of Trinity College, and the Regius Professor of Divinity, all for the time being, in such way as they shall arrange among themselves; that the Essay or Essays be publicly read in the College Hall, at such time as the Provost shall appoint; and that the Prize consist of a selection of standard Theological works, of which the publications of the late Bishop, if attainable, as we trust they will be rendered by the filial piety of the present Regius Professor of Divinity, shall at all times form a part. This Prize cannot be obtained more than once by the same candidate."

The Essays, clearly and legibly written, with fictitious signatures, are to be given to the Provost, or to the Regius Professor, on or before the 1st day of November in each year.

The foregoing Resolution has been altered so as to admit Graduates of the University of not more than eight years' standing (reckoned from the date of their B.A. Degree) to compete for the Prize. The subject will henceforth be announced two years before the date at which the Essays are to be sent in; and the value of the Prize will be £50.

Subject for 1919.—International relationships in the light of Christianity.

Subject for 1920.—Symbolism, Hebrew and Jewish. Subject for 1921.—Punishment, Divine and Human.

#### PRIZES IN BIBLICAL GREEK.

THESE Prizes were founded by the Board in the year 1840. A sum of £15 is placed at the disposal of the Professor of Biblical Greek, to be given in Prizes to the best answerers at an Annual Examination, which is held in Trinity Term, on a day arranged at the end of the preceding Hilary Term, after due notice has been received.

Candidates for Prizes at this Examination must be at least of Junior Sophister standing.

Course for 1920.—Proverbs, chaps. 1 to 9, and Ecclesiastes.

The Epistles of St. John and Revelation.

Swete: Introduction to the Old Testament in

Greek, chaps. 1 to 3.

The Lectures of the Professor.

## ECCLESIASTICAL HISTORY PRIZES.

These Prizes were founded by the Board in the year 1851. They consist of two Premiums, one of £10, the other of £5, given at an Annual Examination, held by the Professor of Ecclesiastical History. The Examination is held in Trinity Term, and is open to such Students as shall have attended the Professor's Lectures during two Terms of the actual year in which they present themselves as Candidates.

## Course for 1920.

Robertson's History of the Christian Church, A.D. 64-590. Eusebius' Ecclesiastical History. The Professor's Lectures.

For the regulations concerning the "Robert King Memorial Prize n Ecclesiastical History," see under Divinity School.

## PRIZES IN MATHEMATICS.

#### THE LLOYD EXHIBITIONS.

AT a Meeting of the Subscribers to the Lloyd Exhibition Fund, held in Trinity College, on Saturday, the 16th of November, 1839, the Rev. J. H. Singer, D. D., in the Chair, it was agreed:—

- I. That a sum of money having been subscribed for the foundation of Exhibitions in the University, to commemorate the talents and virtues of the late Provost Lloyd, by the promotion of learning in the Institution to whose interest his life was devoted, the aforesaid sum shall be lodged in the hands of the Provost, the Professor of Natural Philosophy, and the Professor of Mathematics, for the time being, in Trust for the purposes declared in these resolutions.
- II. That the interest of the aforesaid sum, and of such other sums as may at any time be added to it, shall be applied to the foundation of two Exhibitions, to be held for two years only.
- III. That the appointment to these Exhibitions shall be made by a public Examination, under the following regulations:—
- 1. The Examinations shall be held in Michaelmas Term, annually, after the Michaelmas Term Examinations, and shall be open to such Students only as shall then be in the *rising* Senior Sophister Class.
  - 2. No Student shall be admissible as a Candidate a second time.
- 3. The Exhibition shall be tenable only so long as the Student to whom it is awarded shall have his name on the College Books.
- 4. The Examiners shall be the Professors of Astronomy, Natural Philosophy, and Mathematics, and the Assistants to the Professor of Mathematics; or any three of them, as they shall agree among themselves.
- 5. The subject of Examination shall be a course of Mathematics and Physics, to be determined by the Examiners, subject to the approval of the Board.

These regulations have been modified by the following Resolutions of the Board of November 22nd, 1913:—

1. That in future the Course for the Lloyd Exhibition shall be the Honor Course in Mathematics up to and including the Course for the Michaelmas Junior Sophister Prize Examination.

2. That the Junior Sophister Michaelmas Prize Examination be merged in the Examination for Lloyd Exhibition, and that the present Examiners for Lloyd Exhibition examine at the same time for Junior Sophister Mathematical Prizes and for Lloyd Exhibition.

IV. Any Exhibition which may fall vacant before the natural period of its expiration shall not be filled up, but its amount shall be added to the principal, for the augmentation of the fund; and the same rule shall be followed in case it should at any time happen that no Candidate of sufficient merit shall present himself.

The fund produces annually about £29. The Exhibitions are payable

half-yearly by the Bursar in February and October.

#### BISHOP LAW'S MATHEMATICAL PRIZES.

In the year 1796, the sum of £735 was given to the College by John Law, Bishop of Elphin, on condition that it should be applied to the purpose of encouraging the study of Mathematics, according to a scheme which was subsequently slightly modified so that it now is as follows:—

- 1. The sum of £20 to be given to that Junior Bachelor who shall pass the best Examination in Algebra, the application of Algebra to Geometry, and Spherical Trigonometry; and £10 to that Junior Bachelor who shall appear to be the second best proficient in the same subjects.
- 2. The Examination to be held on two days in Michaelmas Term, which will be arranged at the end of the preceding Trinity Term, after due notice has been received.
- 3. The Examiners of the Candidates for the Premiums to be the Professors of Mathematics, Natural Philosophy, and Astronomy.
- 4. The sum of £10 to be given, in turn, to each Professor, in order that he may entertain the other two Examiners at dinner, on the day that the Premiums are adjudged: the rotation to begin with the senior.

#### THE M'CULLAGH PRIZE.

In November, 1854, it was resolved by the Subscribers to the M'Cullagh Prize Fund:—

1. That an Annual Prize of £30 be founded, to be called the M'Cullagh

2. That the competition for this Prize be open to all persons not being Fellows of Trinity College, or Professors in the University of Dublin, whose names shall be on the books of the said College, on the day appointed for the adjudication of the Prize, and for at least three days previously.

3. That this Prize shall, subject to the restriction in No. 7, be awarded to the best answerer at an Examination, to be held on a day fixed by the

Examiners, and of which due notice shall be given.

4. That the subject of this Examination shall be a Course of Mathematics and Physics, or of either of these, to be fixed from time to time by

the Examiners, as stated in No. 6.

5. That the Examiners for this Prize shall be the Professor of Astronomy, the Professors of Natural Philosophy, the Professor of Mathematics, the Donegal Lecturer, and the Assistant to the Professor of Natural Philosophy, or any three of them.

6. That the subject of each Examination shall be determined by the aforesaid six Examiners, or the majority of them, and publicly announced, at least one year previously to the day appointed for the Examination.

at least one year previously to the day appointed for the Examination.
7. That if at any Examination the Examiners shall be of opinion that sufficient merit has not been shown by any of the Candidates, it shall in such case be competent for the said Examiners to withhold the Prize for that year; and that the sum or sums thus accruing shall form a surplus fund, from which Prizes may be adjudged to such disappointed Candidates for the M'Cullagh Prize as the Examiners may consider to be worthy of such encouragement.

8. That no person who has once obtained the M'Cullagh Prize shall

be admitted as a Candidate a second time.

In 1875, a change was made in the investment of the Fund, which rendered the sum available in each year for Prizes £40. If, therefore, sufficient merit be shown, it is open to the Examiners to award in each year an additional Prize or Prizes.

The Examination is held in Hilary Term.

Subject for 1920 .- Hydrodynamics.

## THE MICHAEL ROBERTS PRIZE.

On the 13th June, 1883, the sum of £200 was received from Mrs. Michael Roberts, to found a Prize in Mathematics, to be called the "Michael Roberts Prize."

The Michael Roberts Prize is awarded to the Student who, having passed the Final Freshman Examination, shall be judged by the Board to have answered best at the Mathematical Honor Examination of the Senior Freshmen in the Michaelmas Term.

The sum invested yields annually about £6.

## THE TOWNSEND MEMORIAL PRIZE.

On the 19th December, 1885, a scheme, recommended by a final meeting of the Subscribers of a Fund in memory of the late Rev. Richard Townsend, was laid before the Provost and Senior Fellows, and adopted by them. It provided:—

1. That the balance of the Fund subscribed, after paying the cost of the Portrait in the Common Room, be invested in approved Trustee securities in the names of the Bursar of Trinity College, Rev. George Salmon, D.D., Benjamin Williamson, M.A., and George L. Catheart, M.A., as Trustees for the purposes of the Fund.

2. That an Annual Prize, payable out of the interest of the Fund, and depending on its amount, be founded in the University of Dublin, to be

called "The Townsend Memorial Prize."

It then prescribed rules under which the prize was to be given to the best answerer at an annual examination, if sufficient merit were shown. Under these rules the prize was paid in 1886, in part, and once only in full, in 1889. The Board, therefore, in 1891, on the recommendation of a meeting of Mathematical Examiners, altered the rules for its adjudication to the following:—

In 1893, and subsequent years, the Townsend Memorial Prize will be awarded to the Junior Freshman who shall obtain the highest aggregate of marks in Mathematics at the Michaelmas Prize Examination, and either the Hilary or the Trinity Honor Examinations.

If in any year sufficient merit be not shown, it shall be in the power of the Trustees, on the recommendation of the Examiners, to withhold the Prize, and to add the surplus thus accruing to the Principal Fund.

The value of the Prize is about £20.

## CHARLES WILKINS MEMORIAL PRIZE.

A sum of £190 having been subscribed in 1879 by the fellow-students and friends of the late Charles James Wilkins to found a Prize as a Memorial of him, the Board of Trinity College, in consideration of receiving that amount, have liberally consented to grant annually a sum of Ten Pounds, which will be given as the "Charles Wilkins Memorial Prize" to the woman who answers best in the Mathematical part of the Examination for Junior and School Exhibitions, and at a Special Examination to be held in October.

The following is the Course for the Special Examination:-

Trigonometry, to the end of Solution of Plane Triangles.
Taylor's Geometry of Conics, Part 1., Chaps. 1 to 4 (both inclusive).
Salmon's "Conic Sections," the Right Line and Circle (omitting methods of abridged notation).

## PRIZES IN CLASSICS.

#### BISHOP BERKELEY'S GOLD MEDALS.

In the year 1752, May 8, the Provost and Senior Fellows agreed to give annually, for ever, two Gold Medals for the encouragement of Bachelors of Arts in the study of the Greek Language; having received a benefaction of one hundred and twenty guineas, besides a die, from the Right Rev. Dr. George Berkeley, Lord Bishop of Cloyne, and late Fellow of Trinity College, for that purpose.

These Medals were formerly given to such Middle Bachelors as had attended the Lectures of the Regius Professor of Greek, with remarkable diligence, for two Academic years, commencing with the

Term in which they had graduated in Arts.

Subsequently, by a Resolution of the Board of June 11, 1846, these Medals were put under the following regulations, which did not, however, come into operation until 1848:—

- 1. That the two Berkeley Medals, equal in value and honor, be henceforth given at an Examination in the Greek Language and Literature, to be held annually, in Michaelmas Term, before the 20th of November.
- 2. All Students who have been admitted to the Degree of Bachelor of Arts may become candidates for the Berkeley Medals; such candidates are required to attend at least three-fourths of the Lectures given by the Professor of Greek in each Term.

Finally, by a Resolution of the Board, dated November 15, 1856, these Medals were put under the following regulations:—

- 1. The two Berkeley Medals, with a distinction in honour of first and second, shall henceforth be given to the best answerers at an Examination in the Greek Language and Literature, to be held annually in Hilary Term.
- 2. All Students, whether Graduates or Undergraduates, under M.A. standing, may become candidates for the Berkeley Medals.

3. No Student shall be allowed to be a candidate more than three

times, nor to obtain the Medal more than once.

4. The books and subjects of the Examination are to be annuanced annually by the Regius Professor of Greek, in the University Calendar, subject to the approval of the Board.

5. The Examination shall be conducted by the Regius Professor of Greek, the Professor of Latin, and one Examiner nominated by the Board.

6. The candidates will be examined in Composition, in the manner of the author or authors who shall form on each occasion the subject of the Examination.

Subject for 1920.—The Iliad of Homer.

Subject for 1921.—Bucolici Gracci (Oxford Text).

#### VICE-CHANCELLOR'S LATIN MEDALS.

On the 30th of January, 1869, it was resolved by the Provost and Senior Fellows to establish an annual Examination in Latin, similar to that held for the Berkeley Medals in Greek, and subject to the same Regulations. Two Gold Medals, called "The Vice-Chancellor's Latin Medals," are given to the successful Candidates.

The Examination is held annually in Michaelmas Term, on a day fixed at the end of the preceding Trinity Term, after due notice has been received.

Subject for 1919 and 1920.—Cicero, Epistulae ad Familiares.

## VICE-CHANCELLOR'S PRIZES.

In the year 1857 Resolutions, approved of by the Vice-Chancellor, were adopted by the Board, with reference to the Vice-Chancellor's Prizes, and were modified in 1906, so that they now are as follows:—

RESOLVED, — That for the existing Regulations respecting Vice-Chancellor's Prizes, the following Rules be substituted · —

That Vice-Chancellor's Prizes for Composition be offered in each year, viz., for the best Compositions on proposed subjects, in English Prose, English Verse, Greek or Latin Prose, and Greek or Latin Verse.

That the highest amount of any Prize be Twenty Pounds.

That Prizes of less amount, and more than one in each kind of Composition, may be awarded on the recommendation of the Examiners. That these Prizes be open to all Students under the standing of M.A.,

having their names on the College Books.

That the Prizes in each of the above departments be not awarded to any Student oftener than twice in succession, or than three times during his College Course.

That the subjects for the above Compositions be announced, on or before the 1st of June, in each year; that the Compositions. with fictitious signatures, be sent in to the Senior Lecturer, on or before the 1st of December; and that the Prizes be declared on the 1st of January following.

That the Examiners be the Regius Professor of Greek, the Professor

of Latin, and the Professor of English Literature.

Subjects for the Prizes to be awarded in January, 1920.

Greek or Latin Prose—"Slave labour in ancient times, and its

Greek or Latin Verse-" The Rhine."

The Subjects in English Prose and Verse will be found under the head "Prizes in English."

#### THE FERRAR MEMORIAL PRIZE.

AT a meeting of the subscribers to the Ferrar Memorial Fund, held in Trinity College, on Wednesday, the 11th of November, 1874, the Rev. George Salmon, D. D., Regius Professor of Divinity, in the Chair, it was resolved:—

1. That the entire Fund subscribed be invested in Bank of Ireland Stock, in the names of the Provost of Trinity College, the Rev. George Salmon, D.D., and William Ewart, Esq., J.P., as trustees for the purposes of the Fund.

2. That an annual Prize, payable out of the interest of the Fund, and depending on its amount, be founded in the University of Dublin, to be

called "The Ferrar Memorial Prize."

3. That the Prize be awarded, subject to the restriction of sufficient absolute merit, to the best answerer at an Examination to be held in Trinity College, on a day or days of which due notice shall be given.

4. That the subject of Examination for the Prize be a course of Comparative Philology, to be fixed from time to time by the Board of Trinity College, and duly announced in the University Calendar for each year.

5. That the competition for the Prize be open to all under the standing of M.A.—not Fellows of the College, or Professors of the University—whose names shall be on the books of Trinity College during the day or days of Examination.

6. That successful competition for the Prize in any year shall preclude the successful candidate from competition for it again in any subsequent

year.

The Fund invested produces annually about £22; but as the Examiners' Fees are paid out of the Fund, the annual value of the Prize is about £15.

The Examination for the Prize is held in Trinity Term. The Course for the Examination is—

Giles' Manual of Comparative Philology.

Wright's Gothic Grammar, or, the following works in Sanskrit:— MacDonnell's Sanskrit Grammar for Beginners, and First Five Cantos of the Nala.

#### THE TYRRELL MEMORIAL PRIZE.

AT a meeting of the subscribers to a fund for establishing a Memorial in memory of the late W. G. Tyrrell, held on the 20th October, 1877, certain resolutions were unanimously agreed to, were sanctioned by the Board on December 1, 1877, and slightly modified on December 8, 1900, so that they now are as follows:—

1. That the Prize be a Biennial Gold Medal, to be awarded for the best Translations of passages into the four kinds of Classical Composition.

2. That the passages for the Compositions be announced in November each alternate year; the Compositions, with fictitious signatures, to be sent to the Senior Lecturer on or before the 1st of February following.

3. That the Competition be open to all Students under the standing

of M. A., having their name on the College Books.

 That the Examiners be the Regius Professor of Greek and the Professor of Latin.

#### THE WILLIAM ROBERTS PRIZE.

On the 13th December, 1884, the sum of £200 was received from Mrs. William Roberts, to found a Prize in Classics, to be called the "William Roberts Prize." This Prize is awarded to the Student who, having passed the Final Freshman Examination, obtains the highest marks at the Classical Honor Examination of the Senior Freshmen in the Michaelmas Term. The Fund yields annually about £6.

#### MULLINS CLASSICAL EXHIBITION.

The late Inspector-General Mullins having bequeathed to the College a sum of £600, for the "foundation of an Exhibition, to be called the Mullins Classical Exhibition, in such Greek and Latin authors, and under such regulations as the Provost and Senior Fellows may from time to time determine," the Board adopted the following Resolutions in the years 1898 and 1905:—

"The Exhibition shall be tenable for three years, and the Examination shall be held every third year, in Michaelmas Term.

"The course shall consist of works of Greek or Latin authors not included in the General University Curriculum. The authors to be studied for each Examination shall be prescribed by the Board.

"Besides answering in the prescribed course, candidates shall be required to write an original Dissertation, bearing on some part of the subject-matter of that course, or treating questions connected therewith."

The competition is confined to students having their names on the College Books and Graduates under M.A. standing.

The Fund yields annually about £17.

The following is the subject for Examination in 1919:—

Non-literary Ptolemaic Papyri.

Books recommended :-

Elephantine-Papyri. O. Rubensohn (Berlin).

The Revenue Laws of Philadelphus. Grenfell and Mahaffy (Oxford).

Hibeh Papyri. Grenfell and Hunt (Oxford). Petrie Papyri. Mahaffy and Smyly (Dublin).

Tebtunis Papyri I. Grenfell, Hunt, and Smyly (Oxford).

Papyrus Grees de Lille, Jouguet (Paris).

and the Ptolemaic documents in-

Papyrus Grecs du Louvre (Paris).

Greek Papyri I. and II. Grenfell and Hunt (Oxford).

Amherst Papyri. Grenfell and Hunt (Oxford).

The Dissertation should be sent in before November 1, 1919.

## Subjects suggested for the Dissertation.

- 1. The financial administration of the Ptolemies.
- 2. The military organisation of the Ptolemies.
- 3. Systems of land tenure and agriculture.
- 4. Ptolemaic chronology.

It is to be distinctly understood that these subjects are merely suggested, and that candidates are at liberty to choose any subject for investigation they please, provided it be connected with the history of the period treated by the prescribed authors.

#### THE MARSHALL PORTER MEMORIAL PRIZE.

In November, 1900, £500 Great Northern Railway 4 per cent. Debenture Stock was presented by the Right Hon. A. M. Porter, Master of the Rolls in Ireland, and Mrs. Porter, for the purpose of founding a prize in memory of their son, Andrew Marshall Porter, B.A., elected Scholar of the House in 1895, and University Student in 1897, who died on the 5th June, of wounds received in action, on the 31st May, 1900, at Lindley, in South Africa, where he was serving as a volunteer.

The following conditions were suggested by the Donors, and

agreed to by the Board, November 3, 1900 :-

1. The income derived from the investment shall be awarded each year as a prize to the candidate for Classical Scholarship who, having failed to obtain a Scholarship, shall have obtained the highest marks of any unsuccessful candidate, subject always to the same conditions as to conduct as apply to the election of Scholars.

2. In case of equality of marks amongst two or more eligible candidates, preference shall be given to him who shall have obtained the higher marks in Classical Composition. If the eligible candidates shall be equal in

Classical Composition, the prize shall be divided.

3. The Board shall have power to withhold the prize in case the Examiners certify that no candidate is of adequate merit. In such case the interest on the fund for the year shall be added to the capital.

The Prize is payable in October by the Bursar.

## PRIZE IN MENTAL AND MORAL PHILOSOPHY.

#### THE WRAY PRIZE.

A SUM of £500 was given in 1848, by Mrs. Catherine Wray, widow of the late Rev. Henry Wray, D. D., Vice-Provost and Senior Fellow of Trinity College, to found a Prize for the encouragement of Metaphysical Studies among the Undergraduates of the University of Dublin.

Students in the Senior Sophister Class are alone admissible as Candidates. The Examination is held in Hilary Term, on a day arranged at the end of the preceding Michaelmas Term, after due notice has been received. The Course for Examination is as follows:—

- 1. The General History of Philosophy.
- 2. The following works:-

Descartes' Meditations.
Spinoza's Ethies, Books i and ii.
Hume's Enquiry Concerning Human Understanding.
Kant's Kritik of the Pure Reason.
Rogers' Short History of Ethies.

3. A special work to be chosen by the Honor Examiners and the Professor of Moral Philosophy, and submitted to the Council not later than June 25th in the year preceding the Examination.

Special work for 1919:-Rashdall's "Theory of Good and Evil."

The value of the Prize is about £28.

## PRIZES IN EXPERIMENTAL SCIENCE.

#### EKENHEAD SCHOLARSHIP.

A SCHOLARSHIP, called "THE EKENHEAD SCHOLARSHIP," tenable for three years, was founded in 1879 by Mrs. Mary Dummett, in

memory of her brother, Thomas Ekenhead, Esq.

This Scholarship, which is open only to natives of the county of Antrim, will be awarded to the best answerer (provided that sufficient merit be shown) at an Examination in Elementary Physics and Chemistry, to be held in the Trinity Term of every third year. Candidates must have their names on the College Books, and must not have passed the Examination (Moderatorship or General) for the Degree of A.B. An Examination will be held in Trinity Term, 1920, the appointed subjects of Examination being as follows:—

#### ELEMENTARY COURSE IN PHYSICS.

## Density and Heat.

Comparison of weights (balance).

Measurement of pressure (barometer, manometer, Marriott's tube).

Measurement of surface tensions of liquids (capillarity).

Diffusion of liquids and gases (dialysis, viscosity).

Measurement of densities (specific gravity balance, specific gravity bottle, hydrometers).

Thermometry (mercurial thermometers, Fahrenheit and Centigrade scales). Expansion of solids, liquids, and gases (Roy and Ramsden's, Dulong and Petit's, and Regnault's experiments, compensating pendulums, maxi-

mum density of water, air thermometers).

Measurement of densities of gases and vapours (Regnault's and Guy Lussac's methods).

Measurement of specific heats (method of mixtures, Dulong and Petit's

Changes of state (liquefaction, evaporation, and boiling).

Measurement of tension of saturated vapours (Regnault's experiments).

Measurement of latent heat (ice calorimeters, Carrè's freezing machine).

Measurement of heat of combustion.

Determination of mechanical equivalent of heat (Joule's experiments). Work done by a body expanding (indicator diagram, steam-engine).

## Electricity.

Production of electric currents by chemical action (Wollaston's, Daniell's and Grove's cells).

Measurement of intensity of current (tangent galvanometer).

Laws of electrolysis (Faraday's experiments, voltameters, electrotyping).

#### Optics.

Laws of Reflexion and Refraction, experimentally considered; Prisms Spectroscope; Lenses.

#### Chemistry.

Candidates are expected to give evidence of experimental knowledge in the following subjects:—

Modes of distinguishing physical and chemical change; Proofs of laws of constant composition; Definite and multiple proportions: Determination of equivalent and atomic weights; Distinctions of metals and non-metals; Characters and modes of preparation of chief nonmetals, and of their acid and non-acid products; Composition of air, water, and coal-gas; The processes of combustion and of respiration in animals and plants; Detection of common acids and metals; Preparation and properties of the metals and their chief compounds; Spectra of the principal metals.

Candidates are also expected to perform simple chemical calculations.

The Ekenhead Scholarship is tenable for three years. The Fund produces annually about £32, and is payable half-yearly in February and October.

## FITZGERALD MEMORIAL SCHOLARSHIP AND MEDAL.

On the death of George Francis FitzGerald, F.T.C.D., F.R.S., in the year 1901, a Committee was formed for the purpose of founding a FitzGerald Memorial, to take the form of a Scholarship for the encouragement of Research in Experimental Physics by Students of Trinity College. A sum amounting to over £1600 was collected, and was disposed of as indicated by the following resolutions, suggested by the Committee, and approved of by the Board on June 28, 1902:—

- 1. That the Fund be lodged in the names of the Provost of Trinity College, the Bursar, and the Erasmus Smith Professor of Experimental Philosophy; and that the management of the Fund be in the hands of the following Trustees, viz.: the Provost, the Bursar, Erasmus Smith's Professor of Experimental Philosophy, Prof. D. J. Cunningham, and Prof. John Joly.
- 2. That the Fund be in the first place applied to the foundation of a Scholarship for the encouragement of research in Physical Science by Students of Trinity College, Dublin, who have obtained the B.A. Degree of the University of Dublin, and who during the term of Scholarship are to carry out research in the Physical Laboratory of Trinity College, under the direction of the Erasmus Smith Professor of Experimental Philosophy, and to take part in the practical instruction of Students in the Physical Laboratory.

- That this Scholarship be known as the "FitzGerald Memorial Scholarship."
- 4. That the FitzGerald Memorial Scholarship be awarded annually on sufficient merit being shown by the candidate in his experimental work done in the Physical Laboratory of Trinity College, and in the Physical portion of the Examination for Moderatorships in Experimental Science.
- 5. That the holder of the Scholarship be eligible for re-election under special circumstances, on the recommendation of the Trustees.
- 6. That secondly, a portion of the Fund be expended in founding a FitzGerald Medal, to be awarded to Students for research carried out in the Physical Laboratory of Trinity College, on the recommendation of the Trustees.

## PRIZES IN HISTORY AND POLITICAL SCIENCE.

#### CLUFF MEMORIAL PRIZE.

THE friends of the late James Stanton Cluff, both in this country and in England, desiring to express, by some permanent Memorial, their admiration of his talents, and their esteem for his character, have collected by subscription a sum of about £400, which has been devoted to the foundation of Prizes in Trinity College, Dublin, and University College, London—institutions with both of which he was closely connected.

The sum of £200 was presented to Trinity College and accepted by the

Board on December 24, 1870.

The Prize was, prior to the year 1888, awarded to the best answerer at a Special Examination on a portion of Mediæval or Modern History.

Since 1888, by a Resolution of the Board and Council of June 2, and May 9, 1888, the Prize has been annually awarded to the best answerer at the Examination for Prizes in Modern History, held in the Michaelmas Term of the Junior Sophister Year. The Fund produces annually about £10.

#### THE BLAKE NATIONAL HISTORY SCHOLARSHIP.

In the year 1884, the sum of £2700 was bequeathed by Miss Helen Blake, for the purpose of establishing a Scholarship, to be called "The Blake National History Scholarship." The following Regulations in reference to this Scholarship have been adopted:—

1. An election of a Scholar on the above foundation shall be held every fourth year, and the Scholar so elected shall hold the appointment

for four years.

- 2. The interest of £2700, the Fund handed over by the Lords of the Treasury to Trinity College, shall be paid annually to the Scholar so elected. This Fund, and the accumulated savings, have been invested in the purchase of £2300 four per cent. Debenture Stock of the Great Southern and Western Railway Company of Ireland, and in £95 0s. 11d. Bank of Ireland Stock: and about £92 is paid annually to the elected Scholar.
- 3. The Scholarship shall be awarded to the author of the best unpublished Essay on the History of Ireland, or such portions thereof, or cognate subject bearing thereon, or event, or series of events, connected herewith, as the Provost and Senior Fellows of Trinity College shall decide.
- 4. The subject for the Essay, within the limits aforesaid, for which the Scholarship shall be awarded, shall be announced publicly three years before the election.
- 5. The Electors shall be the Provost and Senior Fellows, who shall from time to time make and publish the arrangements for the Election of these Scholars.

6. If the Provost and Senior Fellows shall decide that no Essay sent in is worthy of a Scholarship, no election shall take place on that occasion. And in this case the accruing interest shall be invested by the Provost and Senior Fellows to form a fund to be appropriated to the purposes hereinafter mentioned.

7. They may give a reward or rewards to unsuccessful Candidates, or apply a portion of the fund specified in No. 6 to defray the expenses of

publication of Essays which may possess sufficient merit.

8. The Candidates for the Scholarship shall be resident Students of Trinity College, Dublin—the word Student being interpreted to include Members of Trinity College, under the Collegiate standing of Masters of Arts.

9. The first election shall take place early in the year 1888.

10. Scholars so elected may retain their Scholarships after taking the M.A. degree, but they must reside in Trinity College, or its vicinity, under the penalty of forfeiting their Scholarships. And in ease of such Scholarship being forfeited or ceasing to be tenable (otherwise than by the effluxion of time), the Provost and Senior Fellows may appropriate so much of the income of the fund as would otherwise be applicable to such Scholarship to the fund specified in No. 6 of these Regulations.

11. The subject for the Essay to which the Scholarship will be awarded in 1920 is:—Irish History, social, political, and ecclesiastical, for the period 1625 40. Candidates are requested to observe that it is not a mere dissertation on a period that is required, but a narrative of facts. This narrative must be derived throughout from original sources, and every portion of it must be supported by reference to printed or manuscript documents. Candidates are invited to discuss the value of the authorities they use.

The Essays are to be sent in on or before November 1st in the year

of election.

#### DUNBAR INGRAM MEMORIAL PRIZE.

On December 2, 1896, J. K. Ingram, LL.D., Senior Fellow of Trinity College, gave a sum of £250 for the foundation of a Prize in Modern History, in memory of his son, T. Dunbar Ingram, and

it was resolved-

"That a Prize be founded to be called the Dunbar Ingram Memorial Prize: that it be annually awarded to the student who, having passed the Final Freshman Examination, shall obtain the highest sum of marks at the Honor Examination in Modern History held in the Michaelmas Term of the Senior Freshman year: that Candidates at that examination, who desire to compete for this Prize, shall be allowed to increase their sum of marks by answering in a special course on some historical period, changeable from time to time."

The sum invested produces annually about £7.

The Special Course at present is :-

#### IRELAND UNDER THE NORMANS, 1169-1216.

Expugnatio Hibernica of Giraldus Cambrensis (Rolls Series). Orpen: Ireland under the Normans, 2 vols.

#### PRIZES IN POLITICAL ECONOMY.

In the year 1837, the Provost and Senior Fellows resolved to institute an Annual Examination in Political Economy, and to offer Prizes, one of £10, and a second of £5, for proficiency in that science.

The Examination is held in Trinity Term; it is conducted under the direction of the Professor of Political Economy, partly viva voce,

and partly by written questions.

These Prizes are open to all students under M.A. standing. No Candidate who has once been awarded either of the Prizes can obtain a Premium a second time.

The Course consists of two parts, viz. :-

I. General Course (60 marks).

Candidates will be examined in-

- (i) Economic Theory and History of Theories.
- (ii) Economic History.
- (iii) The Elements of Statistics.

II. Special Course (40 marks).

A special subject, variable from year to year, will be prescribed.

## Special Subject for 1920.

" Combinations in Modern Trade and Industry."

The following works may be consulted:-

Ripley, "Trusts, Pools, and Corporations."
Macrosty, "The Trust Movement in British Industry."
"Report of Committee on Trusts" (Cd. 9236).

## WHATELY MEMORIAL PRIZE IN POLITICAL ECONOMY.

On the 13th of May, 1871, a communication was received by the Board of Trinity College, from the Committee of the Whately Memorial Fund, stating that, after defraying the expenses connected with the administration of the Fund, and the erection of a monument to the late Archbishop Whately, in St. Patrick's Cathedral, Dublin, there remained a sum of £311 17s. 1d., New Three per Cents., and a small sum in cash. After paying the premium in 1872, there remained a sum of £364 19s. 6d., New Three per Cents., to the credit of the Fund. The entire Fund is now invested

in £102 3s. 6d. Bank of Ireland Stock, and produces annually about £12. The following proposal, relative to the Whately Prize, was adopted by the Board, June 21, 1886:—

The Prize will in future be awarded to the author of the best essay on a specified economic subject, which conforms to the conditions hereinafter stated.

Graduates of any chartered University in the United Kingdom will be

eligible as candidates.

All essays, with fictitious signatures attached, are to be sent to the Senior Lecturer on or before the last day of September in the year in which the Prize is to be awarded. The subject will be announced at least one year previous to the date fixed for sending in the essays.

## PRIZES IN ANCIENT HISTORY AND CLASSICAL ARCHÆOLOGY.

The Bursar is authorized to pay £5 each Michaelmas Term, beginning in 1918, to be distributed in book prizes among the Students obtaining the highest totals of marks on the results of the three Class Examinations to be held in January, April, and October respectively on the work of the previous Terms in Ancient History and Classical Archæology.

## PRIZES IN ENGLISH.

#### VICE-CHANCELLOR'S PRIZES IN ENGLISH.

The rules with respect to the Vice-Chancellor's Prizes in English Prose and English Verse have been given already under "Vice-Chancellor's Prizes."

Subjects for the Prizes to be awarded in January, 1920.

English Prose—"The League of Nations."
English Verse—"The Nike of Samothrace."

#### PRIZE IN OLD AND MIDDLE ENGLISH.

In Trinity Term, 1906, the Board established an annual Prize of £10 10s. to encourage the study of Old and Middle English.

The following Course has been approved :-

Sweet: Anglo-Saxon Reader (last edition).

Beowulf: (ed. Wyatt, Cambridge University Press).

Morris and Skeat: Specimens of Early English, Part 1.

Introduction and extracts, 6, 9, 13, 19, 20; Part 11.

Introduction and extracts, 9, 10, 16. Sievers: Grammar of Old English, ed. Cook.

Wyld: Historical Study of the Mother Tongue. London: John Murray, 1906.

Cambridge History of English Literature, vol. 1.

Unseen passages for translation may be set at the discretion of the examiners.

## DOCTOR HENRY HUTCHINSON STEWART LITERARY AND MEDICAL SCHOLARSHIPS.

Extract from a Scheme pursuant to a Decree of His Honor the Master of the Rolls, bearing date the 11th day of July, 1882, and the Rulings of the 21st day of March and 23rd day of April, 1883, for the distribution of the Residuary Estate of the late Henry Hutchinson Stewart, of Eccles-street, in the City of Dublin.

1. "The moiety of such clear annual income [as shall arise from the real and personal estate bequeathed by the late Doctor Henry Hutchinson Stewart], when paid to the Bursar of Trinity College, Dublin, shall be applied in the maintenance of so many Medical and Literary Scholarships as the said moiety, with the accretions thereto, shall from time to time afford, in the proportion of one Literary Scholarship, and two Medical Scholarships, or as near thereto as the circumstances of the case will admit; the number of such Scholarships available for the year to be prescribed by the Provost and Senior Fellows of Trinity College at the commencement of each Academical year. And one-third of the sum received by the Bursar to be appropriated in each year to the endowment of such Literary Scholarships, and the remaining two-thirds of the said sum to endowment of Medical Scholarships, the said Scholars to be chosen for proficiency in the respective subjects hereinafter mentioned: and in

case the said moiety shall in any one year exceed the amount required for the maintenance of the said Scholarships, or in case the prescribed number of Scholarships shall not for any reason be filled up, the surplus income shall, at the discretion of the Provost and Senior Fellows, be either in the whole or in part reserved as a fund for granting of prizes to unsuccessful competitors for the Medical Scholarships hereby founded in the said College, or be accumulated until, with previous accretions, it shall be sufficient to afford an income for the maintenance of one or more additional Scholarships, such Scholarships to be maintained as Medical and Literary Scholarships in the same proportion as the original Scholar-

ships.

2. "One Medical Scholarship at least shall be awarded for proficiency, to be ascertained by competitive examination, in the subject of the treatment of Mental Diseases, according to a course to be prescribed by the Provost and Senior Fellows of Trinity College; and the remaining Medical Scholarship or Scholarships shall be awarded for proficiency to be ascertained by competitive examination in some or all of the following subjects—that is to say, Anatomy, Physiology, Chemistry, Physics, Botany, Materia Medica, or other cognate subjects, according to a course to be from time to time prescribed by the Provost and Senior Fellows of Trinity College; and all such Scholarships and Prizes shall be designated by the name of 'The Doctor Henry Hutchinson Stewart Medical Scholarships and Prizes;' and the Provost and Senior Fellows shall apportion the sum applicable to the endowment of Medical Scholarships in each year in such proportions as they shall consider advisable between the Medical Scholarships of each class.

3. " Each Medical Scholar elected for proficiency in the subject of the treatment of Mental Diseases shall, as the condition of retaining such Scholarship, be bound within six months from his election to such Scholarship to proceed to some recognized institution for the treatment of Mental Diseases, to be approved of by the Board of Trinity College, and there continue as either a resident or out-door pupil for such period. not less than six months, and under such conditions, as the Provost and Senior Feliows shall by a general regulation prescribe; and on failure to observe such condition, the said Scholarship shall in the discretion of the said Provost and Senior Fellows be liable to be declared vacant.

4. "The Literary Scholarship or Scholarships shall be awarded to the Student or Students who shall be certified by the Senior Lecturer to have obtained the highest aggregate of marks at the five several Honor Examinations in Modern Literature held in the Junior Freshman and Senior Freshman and Junior Sophister years, and all such Scholarships shall be respectively designated by the name of 'The Doctor Henry Hutchinson Stewart Literary Scholarships and Prizes.'

5. "No student shall compete for a Medical Scholarship other than the Scholarship for proficiency in the treatment of Mental Diseases, after the completion of his second year as a Medical Student in Trinity College. Dublin: and no person shall compete for a Scholarship to be awarded for proficiency in the treatment of Mental Diseases, but within two years after he shall have graduated as a Bachelor of Medicine.

6. "No person shall compete for a Medical Scholarship who is already the holder of a Medical Scholarship either in Trinity College or the Royal University; and no person shall be admitted to compete a second time

for a Medical Scholarship.

7. "Each Scholarship, whether Medical or Literary, shall be held for the term of three years; and it shall not be incumbent on the Board of Trinity College to fill the vacancies available in any one year, if in their opinion the answering has not been such as to merit it."

Clause 5 has been amended pursuant to an order of the Master of the Rolls, dated the 20th of November, 1899, so that it now

reads as follows :-

Subject as hereinafter provided, no student shall compete for a Medical Scholarship in Anatomy and Institutes of Medicine after the completion of his second or third year (at the discretion of the Board of Trinity College, Dublin) as a Medical Student in Trinity College, Dublin: and no student shall compete for a Medical Scholarship in any other subject (other than the Scholarship for proficiency in the Treatment of Mental Diseases) after the completion of his second year as such Medical Student as aforesaid; and no person shall compete for a Scholarship to be awarded for proficiency in the Treatment of Mental Diseases but within two years after he shall have graduated as a Bachelor of Medicine: Provided always that students who enter the Medical School in Trinity College, Dublin, in a Summer Session, shall be allowed to compete for a Medical Scholarship in Anatomy and Institutes of Medicine at the end of their third or fourth Summer Session (at the discretion of the aforesaid Board of Trinity College, Dublin) if they have not taken out a course of Practical Histology or Dissections in their first Summer Session.

In Michaelmas Term, the Senior Lecturer will add to the marks obtained by the Candidate at the three Examinations in Modern Literature of the Junior Sophister Year those obtained by him at the two Examinations in English, French, or German Literature held in the Michaelmas Terms of the Freshman Years. If he has been awarded Prizes in more than one of these subjects in either of the Michaelmas Terms of the Freshman Years, that in which he obtained the highest marks will alone be taken into account in awarding the Dr. Henry Hutchinson Stewart Scholarship. The Junior Sophister who shall have obtained the highest aggregate of marks so made up, shall receive £20 a year during three years, provided his answering be deemed sufficient. The

Scholarship is paid quarterly by the Bursar.

For the Regulations respecting the Dr. Henry Hutchinson Stewart Medical Scholarships see under the head "School of Physic, Prizes."

## RICHARD F. LITTLEDALE PRIZE.

ON January 18, 1892, Mr. Harold Littledale and other relatives and friends of the late Rev. Richard F. Littledale, D.D., contributed a sum of £228 14s. 6d. for the founding of a Prize in English Literature in commemoration of him, and it was decided that the Prize should be awarded annually to the student who, having passed the Final Freshman Examination, shall obtain the highest marks at the Michaelmas Senior Freshman Prize Examination in English Literature.

The sum invested produces annually about £7.

## PRIZES IN ORIENTAL LANGUAGES.

## HEBREW, CHALDEE, AND SYRIAC PRIZES.

PRIZES to Graduates for the encouragement of the study of Hebrew were first instituted by a decree of the Board, dated February 22, 1794, and a fund set apart for the purpose. In the year 1800, this fund was considerably augmented by the munificence of Primate Newcombe, and the grant was continued by his successors in the See of Armagh, until the year 1871, when it was withdrawn, in consequence of the disendowment of the Church of Ireland.

In the year 1874, it was decreed by the Board that a sum not exceeding £40 should be given annually for Prizes in Hebrew,

Chaldee, and Syriac.

All Students are now permitted to attend Hebrew Lectures, and the Professor is authorized to give a Certificate for one year's attendance. An Annual Examination is appointed to be held, at the end of each year, in Trinity Term, and Hebrew Premiums are awarded to the best answerers at this Examination, provided they have attended the three antecedent Terms of Lectures. For the subjects and regulations of this Examination, see "Divinity School," § v.

## PRIZES IN ARABIC, PERSIAN, AND HINDUSTANI.

In Michaelmas Term, 1856, the Provost and Senior Fellows founded an annual Prize of £10 for proficiency in Arabic. An Examination is held annually in Trinity Term, of Students wishing to compete for the above Prize. No Student is admitted to this Examination unless he has studied under the Professor of Arabic for at least three Terms.

In 1872 an annual Prize of £5 was founded, to be given, under similar conditions, for proficiency in Hindustani or Persian.

In 1908 the Board agreed to give both an annual Prize of £5 in Hindustani, and another of equal value in Persian, subject to similar conditions.

The Prizes are not to be awarded unless sufficient merit is shown.

#### PRIZE IN SANSKRIT.

In Michaelmas Term, 1856, the Provost and Senior Fellows founded an annual Prize of £5, which they increased in 1885 to £10, to be given for proficiency in Sanskrit, under conditions similar to those which hold good in reference to the Prize in Arabic.

## PRIZES IN LANGUAGES.

#### PRIZES IN IRISH.

For the encouragement of the study of the Irish Language, in 1842 the Board resolved to place annually the sum of £20 at the disposal of the Professor of Irish, to be given in Premiums to such Students as shall distinguish themselves in the Irish Language. The Examination is held in Trinity Term, on a day arranged at the end of the preceding Hilary Term, after due notice has been received.

The following Courses have been appointed :-

#### Junior Class-

- 1. Elements of Irish Grammar.
- 2. Irish Composition.
- Irish Texts, for translation into English: Mac-Ghniomhartha Fhinn and Tir na n-Oq.

#### Middie Class-

- 1. Irish Grammar.
  - Irish Composition.
  - Irish Text, for translation into English: Toruigheacht Dhiarmuda agus Ghráinne (Parts 1. and 11., Society for the Preservation of the Irish Language).

#### Senior Class-

- 1. A thorough knowledge of Irish Grammar.
- 2. Irish Composition.
- 3. Irish Texts, for translation into English:—
  Oidhe Cloinne Uisnigh.
  Oidhe Cloinne Tuirinn.
  Sgéalaigheacht Chéitinn (Bergin).

## FERGUSON MEMORIAL PRIZE.

On the 31st of May, 1907, a sum of £240, raised by public subscription, was made over to the Board of Trinity College, for the purpose of founding a Prize in Celtic Literature, as a memorial of Sir Samuel and Lady Ferguson.

The sum received was invested in Bank of Ireland Stock, in the name of the Provost, Fellows, and Scholars, and of the Librarian of Trinity College, and produces annually about £7 10s.

The Board of Trinity College have adopted the following regulations:-

1. The Prize shall be known as the Ferguson Memorial Prize.

- 2. It shall be awarded for the best Edition of a text in Old or Middle Irish, hitherto unpublished, and relating to any part of the history or literature of Ireland prior to the year 1200 A.D. The Edition shall include a translation, textual criticism, explanatory commentary, and a glossary, and shall be completely prepared as if for publication. The Prize shall not be awarded unless the text selected be deemed by the Examiner to be of adequate length and interest, and unless a sufficient standard of merit be attained.
- 3. The Prize shall be open to all undergraduates and to graduates under the standing of M.A. It shall be offered for competition every third year beginning with the year 1910, and the exercises submitted must be sent to the Senior Lecturer not later than March 17. If on any occasion the Prize is not awarded, the interest of the Fund shall be added to the capital.
- 4. The value of the Prize shall be £20. The fees of the Examiners shall be paid out of the Fund. Any unexpended balance of interest shall be added to the capital.

#### PRIZES IN ITALIAN AND SPANISH.

EXAMINATIONS for Prizes in Italian, and for Prizes in Spanish, were instituted in 1875, and are held annually, usually in Trinity Term, when a First and a Second Prize in Italian, and a First and a Second Prize in Spanish, are awarded, if sufficient merit be shown. The Prizes are £4 and £2 respectively, in books, and are open for competition to all Undergraduates, but can be obtained only once by any Candidate.

The following Courses have been appointed:

#### ITALIAN.

Manzoni: I promessi Sposi (Chaps. 1.-X11.).

Dante: Il Purgatorio, Cantos 1-20.

Dante: L'Inferno.

The Italian Poets (Blackie). The Italian Prose-Writers (Blackie).

Goldoni: Un Curioso Accidente; Il Vero Amico.

#### SPANISH.

Calderon: La vida es sueño, Il magico prodigioso.

Cervantes: Don Quijote, Part I.

F. Caballero: La Gaviota.

Antologia de los mejores Poetas Castellanos (Nelson).

Valera: El Pájaro Verde (Ginn). Moratín: El Sí de las Niñas (Ginn). Azorin: Lecturas Españolas (Nelson). Gil y Zárate: Guzmán el Bueno (Ginn).

#### PRIZES IN OLD FRENCH AND PROVENCAL.

In Trinity Term, 1908, the Board agreed to institute an annual Prize of £5 in Old French and Provençal, to be awarded on the result of an Annual Examination held in Trinity Term, and open to all Students up to Trinity Term after Degree. The Examiner may, at his discretion, divide the £5 into £3 and £2.

The following Course has been appointed :-

- I. Oulmont: La Poésie Française du Moyen-Age (Mercure de France).
   Le Mystère d'Adam (Studer – Manchester University Press).
- II. (a) Mistral: Mircio, Cantos i, ii, iii, and iv. Mistral: Memòri e Raconte, Chapters x to end.
  - (h) Les Poésies de Peire Vidal (in Champion's Classiques Français du Moyen-Age).
     Bertran de Marseille: La Vie de Sainte Enemie (in Champion's Classiques Français du Moyen-Age).
- III. Bourciez: 'Eléments de linguistique romane,' pp. 25-399.
- IV. Old French and Provençal versification.

#### THE DOMPLERRE-CHAUFEPIÉ PRIZE.

In Trinity Term, 1912, Mr. Gerard Alston Exham, M.A., F.T.C.D., presented £150 Mexican Railway 1st Preference Stock, to found a prize of about £12 annually, for the encouragement of the practical knowledge of French, to be called "The Dompierre-Chaufepié Prize," in memory of a very great friend, Eugénie de Dompierre de Chaufpié, of the Hague, Holland, who died recently.

The following regulations were suggested by Mr. Exham and approved of by the Board:—

- (1) That the prize be given in the Trinity Term of each year, beginning in 1913, in connexion with the Senior Freshman Honor Examination in French, only the Essay and a special vivá voce examination (to test the practical knowledge of French) to be taken into account.
- (2) That Candidates must have attended (any) three Terms of Honor Lectures in French previous to the examination, and must be recommended by the Honor Lecturer.
  - (3) That the regulations may be altered on giving one year's notice.

#### MISCELLANEOUS PRIZES.

#### ALICE OLDHAM MEMORIAL PRIZE.

THE friends of the late Alice Oldham, desiring to record their appreciation of her work for the advancement of the higher education of women, subscribed a sum of money which it was decided to devote to the founding of a Prize in the University of Dublin.

The Prize is to be awarded to the woman Student who, having attended Alexandra College as a Student for at least one Session, shall in her Junior Sophister year obtain highest place among women Students similarly qualified, in one of the Honor Courses of the Michaelmas Term examinations; the award to be made by the Board of Trinity College.

The money subscribed is to be invested in securities authorized by the Trustees Acts; the interest, to a sum not exceeding £10, is to form the Prize, which is to be awarded biennially from 1910: interest in excess is to be added to capital, with the view of so increasing the capital that the Prize may eventually be awarded annually.

The Provost and Lady Registrar of Trinity College and the Lady Principal of Alexandra College are the Trustees for the administration of the fund.

## Cxhibitions and Special Prizes awarded at Entrance.

#### \* JUNIOR AND SENIOR EXHIBITIONS.

In Trinity Term, 1870, it was resolved by the Board that, in pursuance of the Decree of the Board and Visitors, dated March 19, 1870, certain Exhibitions should be established in the College, subject to such changes as the Provost and Senior Fellows might from time to time ordain. The number of these Exhibitions was increased in Trinity Term, 1875, and in Michaelmas Term, 1904.

On March 8, 1913, the Board discentinued the twelve Exhibitions hitherto awarded on the results of the Intermediate Examination, and on June 7, 1913, resolved, that Exhibitions shall in future be distributed by the Board at their discretion when the results of the Senior and Junior Exhibition Examinations are laid before them.

#### I .- JUNIOR EXHIBITIONS AWARDED AT ENTRANCE.

1. Sixteen Exhibitions, twelve of £20, and four of £15 a year, tenable for two years, are awarded in each year to Students in the rising Junior Freshman Class, who have entered within the year, provided sufficient merit be shown by the Candidates.

This rule has been modified by the following resolutions:-

r.—"That the Junior Exhibition Examination be open, not only to all Students in the rising Junior Freshman Class, but also to Candidates whose names are not on the College Books, who shall conform to the regulations as to age and to character already in force, and who shall pay a fee of £1 seven days before the commencement of the Examination.

11.—" The latter class of Candidates will not be elected to Exhibitions unless the Senior Lecturer be satisfied that they have qualified at this Examination in each of the subjects required at an Entrance Examination. Such Candidates are permitted to place their names on the College Books by payment of the excess of the Entrance fee over the above fee of £1 within one week of the declaration of the result, after which the usual Tardy Payment charge commences. If a Candidate is elected to an Exhibition, the Bursar will, at the request of his Tutor, place the December payment of his Exhibition to the credit of the Candidate with the Junior Bursar, as part payment of the Entrance fee."

These Exhibitions are called the Junior Exhibitions.

3. The Examinations are held annually, in Michaelmas Term, on days notified in the University Calendar.

- 4. No Student is allowed to be a Candidate who shall have completed his nineteenth year before the 1st of June immediately preceding the commencement of the Examination.
  - 5. All Students intending to compete for these Exhibitions must forward their names, and a certified copy of their baptismal registry, or other satisfactory evidence of age, to the Senior Lecturer, at least three days before the commencement of the Examination.
  - 6. No Student holding a Supplemented Erasmus Smith Exhibition, is entitled to hold one of these Exhibitions.
  - 7. An Exhibitioner losing his class in College, or not keeping his name on the College Books, forfeits his Exhibition.
  - 8. At the end of the Michaelmas Term Examinations each year, the Senior Lecturer reports to the Board the names of any of the Junior Exhibitioners elected in the previous year who do not appear to have made satisfactory progress in the Junior Freshman year; and the Board then considers whether they will continue the Exhibition for the second year.
  - 9. Any grave violation of College discipline subjects the holder of an Exhibition to forfeiture.
  - 10. The Examination lasts four days (five if Experimental Science is taken), beginning at 9.30 o'clock, A.M., and is in the following Courses:—

mses:—									
		Class	ies (36	0 mai	ks).				Marks.
Compos	itions, .								120
Unprese	eribed Passage	8, .							120
Ancient	History, .								60
Vivâ vo	itions, . cribed Passage History, . ce (see below)	, .							60
			sh (16						
An Eng	lish Essay,								100
English Or.	Literature,	•	•	٠	•	•	٠	٠	1 60
An English Essay,									)
	Frenc	ch or	Germa	ın (18	0 mai	rks).			
		Scien	ice (30	0 mai	rks).				
Arithm	etic								45
Algebra	etic,								90
Geomet	ry-Six Book	s of I	Enelid.	with	easv	dedu	etion	8.	90
Plane T	Geometry—Six Books of Euclid, with easy deductions, Plane Trigonometry,							٠, ٠	75
2.3110	rigonometry,		•	•	•	•	.*		10

Each candidate shall bring up one Greek, and one Latin book of his own selection for viva voce Examination. He must send the Senior Lecturer notice of his selection at least one week before the Examination.

The Course in Algebra and Trigonometry is:-

Algebra, The First Four Rules, Fractions, Surds, Simple and Quadratic Equations.

Trigonometry, To the end of Solution of Plane Triangles.

The Course in English consists of :-

- 1. Trench, English Past and Present.
- 2. A. Hamilton-Thompson's History of English Literature (Murray), Chaps. vi., vii., viii., § 1 and § 2, xi., xii. xv., xvii., xix.. omitting Notes and Illustrations, with corresponding portions of Smith's Specimens of English Literature (from "Short Specimens," also published as "Smaller Specimens").
- 3. Milton, Paradise Lost, Book I.
- 4. Shakspere, Merchant of Venice.
- 5. English Composition.
- History of England (Green's Short History of the English People).
- 7. Modern Geography (Clyde).

The Course in Experimental Science is :-

Physics.—Measurement of length, area, volume, density, weight, pressure, and time.

Elementary phenomena of Heat, Light, and Sound. (One hour and a half.)

Chemistry.—Physical and Chemical change. First laws of Chemistry. Elements and compounds. Mechanical mixtures and Chemical compounds. The properties of the typical elements. Hydrogen, Oxygen, Nitrogen, and Carbon. The Elementary Chemistry of the atmosphere. (One hour and a half.)

[These Papers may either be set during the Viva Voce days, or on a subsequent morning.]

The Certificate of a year's work in an approved Laboratory will be required.

11. The Exhibitions are paid half-yearly, through the Tutors of the respective Students—the first payment is made at the close of the December quarter next following the day of election.

<sup>\*</sup> As regards the definition of one book, the Senior Lecturer will accept an amount of any classical author squivalent, in Greek, to one book of Thucydides, or two books of Xenopnon, or a Greek play, or three books of Homer: and, in Latin, to a book of Livy or two books of Cæsar, or a speech of Cicero's not shorter, than the pro-Milone, or two books of Virgil.

II. - SENIOR EXHIBITIONS AWARDED AT THE CLOSE OF THE SECOND YEAR.

- 1. Sixteen Exhibitions, twelve of £20, and four of £15 a year, 'tenable for two years, are awarded, in each year, to Students who have passed the Final Freshman Examination held at the end of the Trinity Term of the Senior Freshman year.
  - 2. These Exhibitions are called the Senior Exhibitions,

3. All Senior Freshmen intending to compete for these Exhibitions must forward their names to the Senior Lecturer, at least one week before the first day of the Final Freshman Examination.

Any Student failing to forward his name to the Senior Lecturer in accordance with this rule, will be required to pay a fee of £1 before his

name can be placed on the list of candidates.

- 4. After the close of the Prize Examinations in Michaelmas Term, the Senior Lecturer adds to the total of the marks obtained by any Candidate for Senior Exhibitions at the Final Freshman Examination, held at the end of Trinity Term—
  - Fifty per cent. of the sum of the marks above a certain minimum (which is fixed for each subject) obtained at the Prize Examinations in Michaelmas Term, and the Honor Examinations (if any) in either Hilary or Trinity Term, by each student in Mathematics, Classics, Mental and Moral Philosophy, Experimental Science, Natural Science, History, and Old and Middle Irish; and thirty-five per cent. of the sum of the marks above this minimum in each case obtained at the Prize Examinations in Michaelmas Term, and the Honor Examinations in either Hilary or Trinity Term, by the student in English Literature, French, and German.
    - The minima are fixed as follows:—Mathematics, 15 per cent.; Classics, 25 per cent.; Logic, 40 per cent.; History, 40 per cent.; Experimental Science, 30 per cent.; Natural Science, 35 per cent.; Celtic Languages, 40 per cent.; English Literature, 40 per cent.; French, 40 per cent.; German, 40 per cent.

In the case of a Student obtaining Honors in the same department at both the Hilary and Trinity Examinations, the highest marks are taken into account.

- 5. The list of marks thus made up is submitted to the Board by the Senior Lecturer, with the names arranged in order of merit; and the Board elects the sixteen most deserving Candidates as Senior Exhibitioners, provided sufficient merit has been shown.
  - 6. A Student who has dropped a class since his entrance is ineligible.
- 7. An Exhibitioner losing his class in College, or not keeping his name on the College Books, forfeits his Exhibition.
- 8. Any grave violation of College discipline subjects the holder of an Exhibition to forfeiture.

- 9. The Exhibitions are paid half-yearly, through the Tutors of the respective Students—the first payment is made at the close of the December quarter next following the day of election.
- 10. All Scholars and Students holding at the time of election a Supplemented Erasmus Smith Exhibition or a Kidd Scholarship are excluded from this competition.

#### ERASMUS SMITH EXHIBITIONS.

By an Act of the Parliament of Ireland (10 Geo. I., c. 1, Private) it was provided that twenty yearly Exhibitions of £8, of the late Irish currency (being equal to £7 7s. 8d. of the present currency), and fifteen several Exhibitions of £6 a year, Irish (being equal to £5 10s. 9d., present currency), shall from time to time, and at all times thereafter, be paid and payable out of the rents and profits of the lands of the Governors, to the like number of Poor Scholars, Members or Students of Trinity College, respectively, until they shall be otherwise provided for, removed, or take the Degree of Master of Arts in College, or be of standing to take such Master of Arts Degree. There is also a reduction of £5 (sterling) a year in the rent of Chambers held by Exhibitioners; an Exhibitioner, who is also a Scholar, can obtain a reduction either as a Scholar or as an Exhibitioner, but not as both.

The following Rules are now in force. Information to be obtained at 40, Harcourt-street, Dublin.

- 1. That, for the benefit of the three Grammar Schools of the foundation of Erasmus Smith, at Drogheda, Galway, and Tipperary, and the pupils thereof, and for the encouragement of learning therein, ten of the said Exhibitions of £7 7s. 8d. shall be appropriated to the said three schools, and that five of these shall be increased or supplemented each year by an additional grant of £32 12s. 4d. to the sum of £40, and that five others of them shall be increased or supplemented by an additional grant of £17 12s. 4d. to the sum of £25, such supplemental sums or grants to be held subject to the regulations hereafter mentioned, and that the said several supplemental grants shall be known and distinguished as "Erasmus Smith's Grammar Schools' Supplemented Exhibitions.'
- 2. That the said Erasmus Smith's Grammar Schools' Supplemented Exhibitions shall not be attached to any of the said three Grammar Schools in particular, but shall be open for competition equally to the pupils of all these schools, subject as hereinafter provided.
- 3. That one such Supplemented Exhibition of £32 12s. 4d., and one such of £17 12s. 4d., shall be offered for competition in each year to pupils of the said three Grammar Schools.

- 4. That the said Grammar Schools' Supplemented Exhibitions shall be open for competition only to such students of Trinity College, Dublin, as shall have been continuously for at least three years in all previous to their College entrance, pupils in some one or more of the said three Grammar Schools.
- 5. That no pupil of any of said Grammar Schools shall be qualified to compete for a Supplemented Exhibition who shall not have continued as a pupil at one of the said three Grammar Schools, if a Pensioner, until the October Entrance Examination in Trinity College, or if a Sizar, until the Sizarship Examination in Trinity College, immediately preceding in each case the Competitive Examination at which he may present himself.
- 6. That for the benefit of the Governors' High School in Harcourtstreet, Dublin, and the pupils thereof, four of the said Statutory Exhibitions of £7 7s. 8d. each, shall be appropriated to the said High School, and shall be increased or supplemented each year by an additional grant of £17 12s. 4d. to the sum of £25, to be held subject to the regulations hereinafter mentioned, and shall be open for competition to pupils of the said High School only; and that the supplemental grants hereinbefore provided for the said High School shall be known and distinguished as "Erasmus Smith High School Supplemented Exhibitions."
- 7. That one such Supplemented Exhibition of £17 12s. 4d. shall be offered for competition in each year to pupils of the said High School.
- 8. That the said High School Supplemented Exhibitions shall be open for competition only to such students of Trinity College, Dublin, as shall have been continuously for at least three years previous to their College Entrance pupils in the said High School.
- 9. That no pupil of the said High School shall be qualified to compete for a Supplemented Exhibition who shall not have continued as a pupil thereat, if a Pensioner, until the October Entrance Examination, or if a Sizar, until the Sizarship Examination in Trinity College, Dublin, immediately preceding in each case the Competitive Examination at which he may present himself.
- 10. That the said supplemented grants for the said High School Exhibitions shall continue to be provided out of the income of the High School, so far as same will extend, and any deficiency shall be made good out of the general funds of the Governors.
- 11. That no student at any of the said Schools shall be qualified to receive any Supplemented Exhibition who shall at the time of such competitive examination have attained the age of twenty years.
- 12. That no Fellow Commoner shall be qualified to compete for any Supplemented Exhibition.
- 13. That the Provost and Senior Fellows of Trinity College, Dublin, be requested to continue to appoint examiners as heretofore, who shall on some convenient day in each year hold a competitive examination of such students as shall present themselves, and shall have entered from the three Grammar Schools of Erasmus Smith's foundation, or the said High School; and the course of learning forming the subject of such

examination shall be that which is or shall be provided or authorized by the rules and regulations of Trinity College, Dublin, for the Examination for Junior Exhibitions.

- 14. That the Head Masters of the said Schools be directed to furnish to the Registrar, before the end of the first week of October in each year, a list of such of their pupils intending to enter Trinity College previous to the Examination for Exhibitions as are duly qualified, as hereinbefore provided, to compete for the Supplemented Exhibitions respectively.
- 15. That the Registrar shall forward a complete list of the pupils of said Schools so qualified to compete for the Supplemented Exhibitions to the Senior Lecturer of Trinity College before the end of the second week of October in each year.
- 16. That the Board of Trinity College be requested to continue to furnish, as at present, to the Governors at the close of each such Competitive Examination, at which any student having been a pupil of any of the said Schools may have presented himself for Examination, a detailed statement of the result of such examination, under the several heads of the subjects examined, setting forth not only the positive merits of each such student, but also his relative merits as compared with the several other persons who have submitted themselves to such examination, from whatsoever schools such other persons may have come, and also in such statement to give such other information respecting the examination as they may deem expedient to bring under the notice of the Governors.
- 17. That in case it shall appear from such statement that a student who shall have entered from any of the said schools, and shall be duly qualified according to these rules, shall be first in merit by reason of his having outstripped all competitors at such examination, wherever exceed, he shall be entitled to receive an additional sum of £10 per annum; and such additional sum of £10 shall be deemed part of his Supplemented Exhibition.
- 18. That the Governors shall not be bound to award any Supplemented Exhibition upon the result of any such Competitive Examination to any of such competitors unless they consider his positive merit sufficient to deserve same, and they shall have power to award a Supplemented Exhibition of a lower amount, if they shall consider the positive merit sufficient only to deserve such amount. £40 Exhibitions shall only be awarded when the candidate is within the first fourteen places; or, if outside that number, shall have scored 45 per cent. at the Examination.
- 19. That no student shall be permitted to compete more than once at any such examination.
- 20. That any student who shall have obtained a Grammar Schools Supplemented Exhibition shall be entitled to hold it for a period of five years, and a High School Supplemented Exhibition for a period of four years, in case his name shall be so long continued on the books of Trinity College, and that proceeding regularly with his class he shall have obtained in each year of his Undergraduate Course one honor of the first rank or two honors of the second rank; the obtaining of such

Supplemented Exhibition being reckoned as equivalent to an honor of the second rank obtained in the Junior Freshman year, a Moderatorship as an honor of the first rank in the Senior Sophister year, and an University Scholarship, in whatever year obtained, as equivalent to an honor of the first rank at the Term Examination in that year. Any Trinity College Student who is on the books of any Professional School, shall be recognized as being on the College Books for the purposes of this Board, and shall be entitled to retain his Exhibition if he shall have passed with credit in that School. A "Pass with Credit" to be defined in each case by a certificate from the Registrar of the School on the recommendation of the Court of Examiners.

- 21. That success at the first Indian Civil Service Competitive Examination shall be reckoned as equivalent to an honor of the first rank, and that success at any of the subsequent Indian Civil Service Examinations shall be reckoned as equivalent to an honor of the second rank.
- 22. That a Supplemented Exhibition shall become forfeited in case the holder shall incur any heavy Collegiate censure, such as public admonition or rustication, or in case all the examinations of any year of his Course shall have elapsed without his having obtained in that year one honor of the first rank or two honors of the second rank, or what is to be deemed equivalent thereto as hereinbefore provided.
- 23. That the Supplemented Exhibitions shall be payable half-yearly, viz., on lat May and lat November; but that payments shall be made in May to such students only as shall have obtained in the preceding part of that year at least one honor of the second rank or its equivalent. That a half-yearly payment held over in May, shall be made in the following November, provided an honor shall have been obtained in the meantime; and a payment for the entire year shall be made in November to such students as had not qualified before the lat of May for a half-year's payment, and shall, between the lat of May and lat of November, have fulfilled all the requisites for the whole year.
- 24. Pupils and former pupils of the Grammar Schools, the High School, and those who have been educated on the Erasmus Smith Foundation in the King's Hospital, Dublin, are eligible to apply for Statutory Exhibitions. All such applications must be lodged before the 1st of October in each year, with the Registrar, 40, Harcourt Street, Dublin.

#### THE JAMES PATRICK KIDD SCHOLARSHIP.

THE following Regulations received the approval of the Board, December 7, 1889:—

- 1. The Examination for the James Patrick Kidd Scholarship shall be held in Michaelmas Term.
- 2. Candidates for this Scholarship must either be in the Rising Junior Freshman Class, and have entered College not earlier than the first day of the preceding Trinity Term, or they must pay a fee of £1 seven days

before the commencement of the examination; but one of the latter class of candidates will not be elected to the Scholarship, unless the Senior Lecturer be satisfied that he has qualified at this examination in all the subjects required at an Entrance Examination; and, if elected, he will be required to place his name on the College Books according to the ordinary rules.

- 3. The Course for the Scholarship shall be that prescribed in the University Calendar for Junior Exhibitions, with the same limit of age.
- 4. The Scholarship shall be tenable for four years, and shall be forfeited by the holder incurring any heavy Collegiate censure, such as public admonition or rustication, failing to proceed regularly with his Class without the leave of the Board of Trinity College, or failing to obtain in any year one Honor of the first rank, or two Honors of the second rank, or else obtaining such equivalent distinctions as are specified in the Regulations for the tenure of Supplemented Erasmus Smith Exhibitions as stated in the University Calendar.
- 5. Whenever in future a Kidd Scholarship shall be vacant, the next following ordinary Examination for Junior Exhibitions shall be suspended, and Candidates for Junior Exhibitions and School Exhibitions shall be required to compete at the Examination for the Kidd Scholarships and each of the sixteen Candidates who come next in answering to the Student elected to the Kidd Scholarship shall be elected to a Junior Exhibition, provided that he satisfies the above condition as to age, and that he is not appointed to a Supplemented Erasmus Smith Exhibition.

The annual value of the Scholarship is about £80. The Scholarship will be awarded in 1921.

#### IKISH SOCIETY SCHOLARSHIP.

The Hon, the Irish Society offers annually to women Students a Scholarship of £60 per annum, tenable for three years in Trinity College, Dublin, subject to the following conditions:—

Candidates must have studied continuously for the two years immediately previous to the competition at an Intermediate School in the city of Londonderry, or in the town of Coleraine. The Scholarships will be allocated to Students whose means are insufficient to pay the full expenses of a University Course, and preference will be given to a Student who is preparing for the profession of teaching.

The Scholarship is awarded on the marks obtained by candidates in

the Senior Grade of the Irish Intermediate Examination.

The age of candidates must not exceed the limit allowed by the Irish Intermediate Board to candidates for Intermediate Exhibitions and Prizes.

Details of conditions of tenure can be obtained from the Hon. Secretary of the Londonderry Scholarship Committee, Victoria High School, Londonderry.

The Scholarship was awarded for the first time in 1907,

#### BIGGS MEMORIAL PRIZE.

THE past pupils and friends of Richard Biggs, LL.D., desiring to record their appreciation of him as a head-master, and their regard for him as a friend, subscribed a sum of money to connect his name permanently with the Schools in which he worked, by instituting a prize to be called "The Biggs Memorial Prize."

The Prize is to be awarded to the best of those competitors at the Examination for Junior and Schools Exhibitions (provided sufficient merit be shown) who shall enter Trinity College, and who shall have been pupils for at least one year at Chesterfield School, Birr (or such other School in or near Birr as shall take its place) or at Galway Grammar School, or at Portora Royal School, Enniskillen.

Competitors must forward evidence of having been pupils for the time required to the Senior Lecturer before the commencement of the Examination.

The sum collected was invested in £350 Great Southern and Western Railway Four per cent. Debenture Stock, yielding annually about £15.

The Prize was awarded for the first time in Michaelmas Term,

#### HASLETT MEMORIAL SCHOLARSHIP.

THE Haslett Memorial Scholarship Fund was created in 1907 by some friends and pupils of the late William Woods Haslett, M.A., to commemorate his work in St. Andrew's College, Dublin, and his services to the cause of education.

The founders of this Scholarship were guided by the wishes which they remembered Mr. Haslett in his lifetime entertained to help deserving pupils to proceed with their education in Trinity

College, Dublin.

The Scholarship is to be awarded to the best of those pupils entering Trinity College who shall be competitors at the examination for Junior Exhibitions, and who shall have been for the two previous years pupils at St. Andrew's College.

The value of the Scholarship is about £25, and it was first

awarded in Michaelmas Term, 1907.

The Scholarship will not be awarded unless sufficient merit is shown.

### EXHIBITIONS TO WHICH APPOINTMENTS ARE MADE WITHOUT EXAMINATION.

THE following Exhibitions are awarded to Students by the Board without a special Examination; they are paid quarterly through the Tutors, provided that the holders (1) proceed regularly with their class, (2) have their names on the College Books, and (3) are

under Master's standing :-

Erasmus Smith Exhibitions.—These Exhibitions were founded by the Governors of Erasmus Smith's Schools, and the foundation was confirmed by Act of Parliament (10 Geo. I., 1723). Students elected by the Board of Erasmus Smith are entitled to priority in appointment to these Exhibitions: and those not so filled are disposed of by the Board. The annual value of a first-class Erasmus Smith's Exhibition is £7 7s. 8d., and of a second-class do. £5 10s. 9d. There are 20 first-class and 15 second-class Exhibitions.

Downes Exhibitions.—The Downes Exhibitioners are selected, in accordance with the will of the founder, as expressed in the following passage of his will (Register, p. 3, 1784):—

"I leave Fifty Pounds annually, to be given among five Students on the Divinity line, in the proportion of £10 each, at the discretion of the Provost and Senior Fellows; respect being had in such choice to narrow circumstances, and proficiency in learning; the said stipend to continue till they shall arrive to the standing of A.M., or shall die, resign, or leave College, and then to cease, and others to be appointed in their room; and to be determinable sooner in case of immoral behaviour, negligence in attending the Divinity Lectures, or incapacity in such Students, certified by the Divinity Lecturer."

The annual value of each Exhibition is £10 Irish, or £9 4s. 8d.

present currency.

Worrall Exhibitions.—The Worrall Exhibitioners, in accordance with the will of the founder, are chosen by the Board from poor scholars, who have entered as Sizars, the sons of clergymen in the diocese of Dublin, or, in default of such, the sons of citizens of the city of Dublin. The Fund produces annually about £75, and the annual value of each Exhibition is £9 4s. 8d. When an Exhibition is declared to be vacant, the Tutors are invited to state to the Board the names of their pupils having the qualifications required by the founder's will, and such other circumstances as may guide the Board in their selection.

Crowe Exhibitions.—These Exhibitions were formerly limited to Students nominated by the representatives of the founders.

On the 28th March, 1874, a deed of grant of the right of presentation to the Crowe Exhibitions, by the Rev. Robert Blundell to the Provost, Fellows, and Scholars of Trinity College, from and after the decease of the said Robert Blundell, was laid before the Board.

The Exhibitions are to be given to "Sons of Clergymen of the Church of Ireland (giving the preference to sons of clergymen of the diocese of Tuam) intending to devote themselves to the ministry of the Church of Ireland," such Exhibitions to be given as a rule to Students at the commencement of their Divinity Course, and in all cases taking into account the poverty of the respective Candidates.

The endowment yields annually about £106, and the annual value of each exhibition is £15.

Span and Avary Exhibitions.—These Exhibitions are specially limited by the wills of the founders to poor Students. There were formerly two Span Exhibitions of £24 annual value each, but in consequence of the failure of the fund, none are being granted at present. There are two Avary Exhibitions; the annual value of each is £4 12s.4d.: the Exhibitioners are nominated by the Provost from among the Sizars.

Clanbrassil, Stearne, Parsons, Yelverton, Griffith, and Briggs Exhibitions are elected to by the Board for general collegiate merit, the preference being generally given to Scholars on the foundation. The annual value of each is £4 12s. 4d.

The Stearne Fund yields annually about £50; the funds of the

remainder yield a total income of about £26.

As these Exhibitions are payable out of Special Trust Funds which are liable to fluctuation, the Board reserve to themselves the power of discontinuing the payment of them, either wholly or in part, whenever the requisite amount is not forthcoming.

Worth Exhibitions.—These Exhibitions were granted, in 1699, by the Hon. William Worth, of the city of Dublin, who granted for the purpose a charge of £20 Irish upon the funds of St. Stephen's Hospital, Cork, commonly called the Blue Coat

School, founded by him.

William Worth appointed that four Students of Trinity College, Dublin, with a preference to natives of the city and county of Cork, should be selected by the Bishop of Cork, the Mayor of Cork, the heir-at-law of William Worth, and the Provost of Trinity College, and the income divided equally between them. In 1890 the Educational Endowments Commissioners framed a scheme for St. Stephen's Hospital, Cork, and directed that the £20 Irish shall be paid by the Governors of the Hospital to the Senior Bursar of Trinity College, and gave the Provost and Senior Fellows power to regulate the conditions, number, amount, and tenure of the Exhibitions.

The Board has decided that the selection of the Students shall be made as heretofore, and that the annual income of £20 Irish shall be divided into two Exhibitions, the Students to be elected for not more than two years, and to be capable of re-election.

## Assistance giben without Examination to deserbing Students.

#### ASSISTANCE GIVEN BY THE TUTORIAL BODY.

Each Tutor is allowed to grant exemption from tuition fees (£4 4s.) to one pupil. If during the previous half year fifty pupils of his have paid fees, he is allowed to grant exemption to two pupils; if seventy-five have paid, he is allowed to grant exemption to three; and so on, to a number not greater than four per cent. of the number of his pupils who have paid fees during the previous half year. Applications for help from this source can be made by students to their Tutors.

#### THE SALMON FUND.

In October, 1894, and in subsequent years, Rev. George Salmon, p.p., Provost, transferred sums of money to the Board to form a fund "for helping poor students to pay their College fees, giving preference to sons of clergymen," which now amount to £4932 19s. 7d. The fund is administered by the Provost. Applications for assistance are made to him through the Tutors.

#### THE FREDERICK PURSER GRADUATES' FUND.

In Michaelmas Term, 1910, the sum of £4000 was presented by John Purser Griffith, M.INST. C.E., and Mrs. Griffith, to institute a Fund in memory of Professor Frederick Purser, M.A., F.T.C.D. The object of the Fund is to lend at nominal interest to Graduates leaving Trinity College, Dublin, sums of money which may assist them to attain at the outset of their several careers more readily than otherwise to permanent positions.<sup>a</sup>

The qualifications which will principally be taken into consideration in granting these loans will be—(1) limited means of the applicant and of his or her parents or guardians; (2) such general distinction and character during his or her College course as will serve as a guarantee that the money lent will be applied to what is likely to prove of permanent benefit to the applicant.

Applications, accompanied by particulars as to the qualifications of the applicant and as to the object and destination of the loan, should be made to the Trustees of the Fund through the Tutor; and the Tutor of each applicant, and some of the Professors or

Such as, say, to assist an Engineering Student who has graduated in the Engineering School to pay the fee required before he can be apprenticed to a Practising Engineer. It should be clearly undertuned that this case is merely taken as an example. Any Graduate may apply who requires assistance at the outset of his or her earcest.

Teachers of Trinity College with whom the applicant has been associated in his or her studies, are to be requested by him or her to send recommendations direct to the Trustees. All communications will be regarded as strictly confidential.

It is only in exceptional circumstances that any single loan will exceed £100. Interest will be charged at one per cent. per annum, payable half-yearly. A recipient of a loan must enter into an undertaking to keep the Trustees acquainted with his or her residence, to pay the interest regularly, and when remunerative employment is obtained to repay the principal by instalments within a reasonable time, that time to be fixed by the Trustees in each case according to the nature of the remunerative employment which has been obtained. If the principal is repaid within three years from the time the loan is made, the interest paid will be refunded.

The Trustees meet to consider applications on the last Tuesday of each month during Term, and on the first day of Michaelmas Term. No application will be considered unless it shall have reached the Trustees at least three clear days before their day of meeting. Communications to be addressed to Dr. L. C. Purser, 35 Trinity College, Dublin.

#### THE FREDERICK PURSER UNDERGRADUATES' FUND.

In Hilary Term, 1911, the sum of £3000 was given by John Purser Griffith, M.INST. C.E., and Mrs. Griffith, to institute a fund in memory of the late Professor Frederick Purser, M.A., F.T.C.D., to be called "The Frederick Purser Undergraduates' Fund," with the object of helping some Sophister Students of limited means who have shown promise in their previous Course, so as to enable them to derive the most benefit possible from the teaching of the Sophister years, whether in Arts or in the Professional Schools; and to save them, as far as may be, from being compelled to divert their energies into other activities in order to obtain necessary means of livelihood.

The whole sum available for distribution will be about £50 for

the first year and £100 for each succeeding year.

Applications, accompanied by particulars as to the qualifications and prospects of the applicant, should be made to the Trustees of the Fund through the Tutor; and the Tutor of each applicant, and some of the Teachers in Trinity College with whom the applicant has been associated in his or her studies, are to be requested by him or her to send recommendations direct to the Trustees. All communications will be regarded as strictly confidential.

The Trustees meet to consider applications on the last Tuesday in October. No application will be considered unless it shall have reached the Trustees at latest on the Friday before the day on which the Trustees meet.

Communications to be addressed to Dr. L. C. Purser, 35 Trinity College, Dublin.

# SUMMARY OF SCHOLARSHIPS, EXHIBITIONS, AND PRIZES, AWARDED BY EXAMINATION IN THE UNIVERSITY OF TRINITY COLLEGE, DUBLIN.

#### At Entrance :-

Every year 16 Junior Exhibitions, 12 of £20, and 4 of £15, a year for two years, and every fourth year the Kidd Scholarship, value about £80 a year for four years.

Additional Exhibitions or Prizes may also be given by the

Board at their discretion to deserving candidates.

Twenty-six Entrance Prizes, namely, a First of £5 and a Second of £2 in each of the following subjects:—Greek Verse, Latin Verse, Greek Prose, Latin Prose, English Literature and Composition, English History and Modern Geography, French, German, Hebrew, Experimental Science, Natural Science, Modern Irish, Scripture.

About 10 Sizarships annually, in Mathematics, Classics, French and German, Experimental Science, Hebrew, and Irish, awarded by examination in October, and limited to poor

students.

The Charles Wilkins Memorial Prize in Mathematics, £10, for Women.

#### In any year of their Course Students may compete for :-

About 16 Foundation Scholarships for men, awarded annually in Mathematics, Experimental Science, Natural Science, Classics, French and German, History and Political Science. Successful candidates are styled Scholars of the House, and are members of the Corporation of Trinity College; they receive a salary of £20 Irish, have their Commons free, their rooms at a reduced charge, pay only quarterly tuition fees of £1 1s., and their Scholarships last usually for 5 years.

Non-Foundation Scholarship, in the same subjects, for women, value £30 a year, with exemption from ordinary College Fees,

save Tuition Fees.

The Marshall Porter Memorial Prize, £20, is awarded annually to the most deserving unsuccessful candidate for Classical Scholarship.

#### Term Honors and Prizes, and Prizes at Lectures: -

Every Term Examinations are held, at which Honors of the First and Second Rank are awarded to Candidates who exhibit sufficient merit. In Michaelmas Term, Prizes of £4 and £2 are awarded to Candidates who obtain First and Second Honors, respectively.

Two Prizes of £1 10s. each, for Composition, are awarded each Term, one in each class, to Freshman students attending the Honor Lectures in Classics, similar Prizes are awarded in French and in German, and similar Prizes are awarded for Composition in English to the students attending the Professor's Lectures, one for Freshman students and one for Sophisters.

#### Prizes and Exhibitions open for Competition :-

In the Junior Freshman year :-

Term Prizes (see above) in Michaelmas Term in: Mathematics, Classics, Mental and Moral Philosophy, Experimental Science, Natural Science, History, English Literature, French, German, Old and Middle Irish.

Composition Prizes every Term (see above), at the Honor

Lectures in Classics, French, German, and English.

Catechetical Prizes, £2 each, at all the Lectures and Exami-

nations, to Students who exhibit sufficient merit.

The Townsend Memorial Prize in Mathematics, £20, awarded on the results of the Honor Examinations in Mathematics.

#### In the Senior Freshman year :-

Term Prizes (see above) in Michaelmas Term in: Mathematics, Classics, Mental and Moral Philosophy, Experimental Science, Natural Science, History, English Literature, French, German, Old and Middle Irish.

Prizes for Composition every Term (see above), at the Honor

Lectures in Classics, French, German, and English.

Catechetical Prizes, £2 each, at all the Lectures and Exami-

nations, to Students who exhibit sufficient merit.

Sixteen Senior Exhibitions, twelve of £20, and four of £15 a year for 2 years, awarded on the results of the Final Freshman Examination and the Honor Examinations of the Senior Freshman year.

Additional Exhibitions or Prizes may also be given by the

Additional Exhibitions or Prizes may also be given by the

Board at their discretion to deserving Candidates.

The Jellett Prizes, £5 and £3, for first and second places at the Final Freshman Examination held at the end of Trinity Term.

The Michael Roberts Prize, £6, in Mathematics; the William Roberts, £6 in Classics; the Dunbar Ingram, £7, in Modern History; and the Littledale, £8 in English Literature; awarded at the Term Prize Examinations in Michaelmas Term; the Dompierre-Chaufepié Prize, £12, in French, at the Trinity Term Honor Examination in French.

#### In the Junior Sophister year :-

Term Prizes in Michaelmas Term in: Mathematics, Classics, Mental and Moral Philosophy, Experimental Science, Natural Science, History and Political Science, Modern Literature, Legal and Political Science, Celtic Languages.

Catechetical Prizes, £2 each, at all the Examinations to Stu-

dents who exhibit sufficient merit.

The Lloyd Exhibition in Mathematics, value about £15 a year for 2 years, awarded at the Term Prize Examination in Michaelmas Term.

The Dr. Henry Hutchinson Stewart Literary Scholarship, value £20 a year for 3 years, awarded on the results of the Term Honor and Prize Examination, in French, German, and English Literature, in the Freshman and Junior Sophister years.

The Cluff Memorial Prize, about £12, in Modern History, awarded at the Term Prize Examination in Michaelmas Term.

#### In the Sensor Sophister year: -

The Wray Prize, £28, in Mental and Moral Philosophy,

awarded at a special Examination in Hilary Term.

The Degree Examination can be passed by answering in any of the following Courses:—Mathematics, Classics, Mental and Moral Philosophy, Experimental Science, Natural Science, History and Political Science, Modern Literature, Legal and Political Science, Engineering Science, Celtic Languages. Successful Candidates are styled Senior or Junior Moderators, and receive Gold or Silver Medals. A Studentship, not exceeding £100 a year for 5 years, and a Brooke Prize of about £34, are awarded to the first and second answerers, respectively, in Mathematics, combined with another Course; and a Studentship and Brooke Prize of similar values are awarded to the first and second answerers, respectively, in Classics, combined with another Course.

About £350 is awarded annually in other Prizes to deserving

answerers at the Degree Examination.

Scholars who obtain Senior Moderatorships are usually granted

Exhibitions of £10 a year for 3 years.

The King Edward Prize of £10 is awarded to the Respondent who answers best at the Degree Examination in December.

The FitzGerald Memorial Scholarship and Medal in Experi-

mental Science, £50.

Catechetical Prizes, value £2 each, are awarded at the Term Examinations to Students who exhibit sufficient merit.

#### In the Junior Sophister and subsequent years to M.A. standing:— Prizes in Biblical Greek, £15.

#### For Undergraduates :-

Prizes in Italian, £4 and £2; in Spanish, £4 and £2.

#### In the Junior Bachelor year:-

The Bishop Law Prizes, value £20 and £10, in Mathematics, in Michaelmas Term.

#### For Graduates of not more than 8 years standing: -

The Elrington Theological Prize, value £50, for an Essay on a Theological subject.

#### For Graduates :-

The Whately Memorial Prize in Political Economy, every fifth year, value about £60, awarded for an Essay on a specified

Economic subject.

At the Examination for Fellowship, the first man out receives the Madden Prize, value about £285, provided there are two disappointed Candidates at least, and to him and other unsuccessful Candidates the Board usually grant Prizes, varying from £60 to £20, in order to encourage them in reading for Fellowship.

#### In any year of their College Course up to M.A. standing:-

Students may compete for the following special Scholarships or Prizes, which are all awarded annually, unless a statement to the contrary is made:—

#### In Mathematics :--

The M'Cullagh Prizes, value £30 and £20, on a special course.

#### Classics :-

Bishop Berkeley's Gold Medals (2), on a special subject.

Vice-Chancellor's Latin Medals (2 Gold), on a special subject. Two Vice-Chancellor's Prizes, value £20 each, for Compositions on special subjects.

The Ferrar Memorial Prize, £15 for Comparative Philology,

a special course being set.

Tyrrell Memorial Gold Medal, every second year, for Com-

position.

Mullins Classical Exhibition, value £17 a year for three years, every third year, awarded on a dissertation and an Examination on a special course.

#### History and Political Science :-

Prizes in Political Economy, £10 and £5, in Trinity Term. The Blake National History Scholarship, every fourth year, value about £92 a year for four years, awarded for an Essay on a specified subject.

Ancient History and Classical Archæology, £5.

#### English :-

The Vice-Chancellor's Prizes, £20 and £20, for English Prose and English Verse.

Prize in Old and Middle English, £10 10s.

#### Languages:-

Hebrew, Chaldee, and Syriac, £40; Arabie, £10; Hindustani, £5; Persian, £5; Sanskrit, £10: all awarded by Examination to Students attending the corresponding Lectures. Prizes in Irish, £20; Old French and Provençal, £5. The Ferguson Memorial Prize in Celtic Literature, every third year, £20.

#### In Subjects connected with the Study of Divinity :-

Wall Biblical Scholarship, value £20 a year for five years. In Ecclesiastical History, £10 and £5.

#### Prizes in the Professional Schools:

Prizes in the School of Divinity:-

Each Term two Prizes for Composition, value £2 each, one for the Senior Class, and one for the Junior. The Carson Biblical Prize, £15 10s. The Toplady Memorial Prize, £6 5s. The Ryan Prize, £3. Archbishop King's Divinity Prizes, £12, £8. Bishop Forster's Divinity Prizes, £14 10s. The Downes' Divinity Premiums: for Written Composition, £12 and £8; for Oratory, £6 and £4; and for Reading the Liturgy, £5, £2, £1, and £1. The Warren Church Formularies Prize, £10. The Robert King Memorial Prize in Ecclesiastical History, £3 10s. The O'Regan Memorial Prize, £5.

Two Theological Exhibitions, value £60 and £20 a year, tenable for three years. The Kyle Irish Prize, £11. A Bedell Scholarship of £20 a year for four years, and a Bedell Prize of £10, are awarded from time to time.

#### Prizes in the School of Law :-

At the end of Trinity Term Prizes amounting to £45 may be awarded by the Professors to the best answerers of the Students attending their Lectures.

#### Prizes in the School of Physic: -

A Begley Studentship of about £37 a year for four years, awarded annually.

A Medical Scholarship of £20 a year for two years, and a Dr. Henry Hutchinson Stewart Scholarship of £10 a year for three years, in Chemistry, Physics, Botany, and Zoology, open to Students who have not completed two years.

A Medical Scholarship of £20 a year for two years, and a Dr. Henry Hutchinson Stewart Scholarship of £10 a year for three years, in Anatomy and Institutes of Medicine, open to Students who have not completed three years.

The Daniel John Cunningham Medal and Prize, awarded at the Intermediate Medical Examination, Part I., in June, to the student who obtains highest marks in Anatomy, and completes the Examination.

The John Mallet Purser Medal in Physiology and Histology, awarded at the Intermediate Medical Examination Part I. in June, open to Students who have not spent more than three years in the School.

The Fitzpatrick Scholarship of about £32 is awarded annually to the Student who obtains the highest aggregate marks at the five sections of the Final Medical Examination, provided that his Medical Course shall have been completed in the prescribed time of five years.

A Medical Travelling Prize, and a Surgical Travelling Prize, each of £100, in alternate years, open in Trinity Term to Students who have passed the Final Examination in Medicine, or in Surgery, as the case may be, within two years from the beginning of the Term. The John Banks Medal is awarded to the winner of the Medical Travelling Prize, and the John Banks Prize of about £15 to the second best answerer. The Edward Hallaran Bennett Medal is awarded to the winner of the Surgical Travelling Prize, and the Edward Hallaran Bennett Prize to the second best answerer.

The following Prizes are granted by the Professors: —Institutes of Medicine, £6 and £4; Practice of Medicine, £5; Materia Medica, £5; Medical Jurisprudence, £5.

#### In the School of Engineering: -

A Prize in Geology and Mineralogy of £10 to third year's men, and one of £5 to second year's men.

A great number of the above Prizes, &c., are paid out of Special Trust Funds, and accordingly are subject to variation, so that the amounts given must be taken as approximate values.

### Professional Schools.

THE Testimoniums in the School of Divinity, and the Degrees, Licenses, or Diplomas in the Schools of Physic, Engineering, and Agriculture can only be obtained by attending prescribed Courses of Lectures during two or more years, and passing certain Examinations.

Students seeking credit for a Term by Lectures must, at the commencement of such Term, duly register with the Clerk of the Books their places of residence for that Term, and during Term notify a change of residence: if this rule be not observed, credit for the Term cannot be allowed.

#### DIVINITY SCHOOL.

#### & I. GENERAL RULES.

In order to obtain the Divinity Testimonium, Students must pass the Regius Professor's Final Examination, having previously kept the Divinity Terms of two years: during the first year with Archbishop King's Professor of Divinity; during the second with the Regius Professor. Each year consists of three Terms, viz. Michaelmas Term, beginning in the last week of October or first week of November; Hilary Term, beginning in the last week of January or first week of February; Trinity Term, beginning in the last week of April or first week of Mav. The Lectures of each Term last about seven weeks. It is regular to keep the Terms in the order just stated; but this is not insisted on, and a Student may enter the Divinity School at the beginning of any Term. When a Student has completed his attendance on three Terms' Lectures, and has satisfied the other requirements stated below, he presents himself at an Examination held by Archbishop King's Professor. A Student cannot obtain credit for his first year, and is not permitted to commence attendance with the Regius Professor, until he has passed this Examination.

Students in Divinity are required to attend the Services in the College Chapel during Lecture Term, and they must satisfy the Regras Professor or Archbishop King's Professor that they are habitual communicants of the Church of Ireland. This rule does not apply to a Student who is not a member of the Church of Ireland, or of a Church in communion therewith; but he will not receive the ordinary Testimonium at the end of the Second Year, a special form being substituted for it.

Students in Divinity who are also Students in Arts are not entitled to claim Professional Privileges in any Term in which they substitute for Classics one of the other Courses in Arts.

No Student can present himself for Entrance into the Divinity School who has not kept at least four Terms of the Freshman Catechetical Course, or passed an examination in the whole Senior

Freshman Catechetical Course.

A Hostel in connexion with the Divinity School has been established by the General Synod of the Church of Ireland, and recognized by the Board of Trinity College as a registered place of residence for Divinity Students. A prospectus will be furnished on application to the Warden, 25, Mountjoy Square, Dublin.

#### & II. ADMISSION TO THE DIVINITY SCHOOL.

Students who have completed their Junior Sophister Year, and who have obtained satisfactory marks in Greek and Latin, may enter the Divinity School; but none but those who have passed the Degree Examination, or who are Senior Sophisters, and qualified to present themselves at the Degree Examination in the following December, are permitted to join the Senior Divinity Class. It is possible for a Student to obtain his Testimonium without paying any fees in addition to those necessary for obtaining his Degree of Bachelor in Arts; because the names of Graduate Divinity Students completing their last Term of Divinity Lectures of the Senior Year in the June Quarter are not struck off the College books until after the Final Examination of the Regius Professor of Divinity; but they are not thereby entitled to the payment of the June quarter of any Exhibition or Prize they may hold.

Students of lower standing than Senior Sophisters who are candidates for Moderatorship, and, in special cases, those who do not intend to pursue the Course in Arts, are allowed to present themselves at the Examination for Entrance into the Divinity School; but it is necessary for them to obtain written permission from Archbishop King's Professor. They are required to make application for such permission a month before the commencement of the Lectures they propose to attend; and they ought to state fully what grounds there are for dealing with them exceptionally, and in particular whether they have received an

education in Arts elsewhere.

Any man who has served abroad in the navy or army during the years 1914-1918, shall, if he receive a recommendation from a bishop, be permitted to present himself at the Entrance Examination to the Divinity School at any time after passing the Entrance Examination to the University, and if he pass the Entrance Examination to the Divinity School, he shall be allowed to proceed with his Divinity Course.

Students wishing to enter the Divinity School should give notice of their intention to Archbishop King's Professor not less than seven days before the date of the Entrance Examination.

The examination for Entrance to the Divinity School embraces

the following courses :-

- The Greek text of the Gospel according to St. Mark, with questions on Greek Grammar.
- 11. Butler, Sermons i., ii., and iii.; with Preface and Dissertation on Virtue.
- III. Mackenzie's Manual of Ethics, Books i. and ii.
- Iv. The Senior Freshman Catechetical Course, viz., Genesis, Exodus, i.-xx., incl., 1 & 2 Samuel, 1 & 2 Kings.

All Students must pass in Courses II. and III.

All Students, whether Graduates or Undergraduates, who have not obtained satisfactory marks in Greek at the Final Freshman Examination, must pass in Course I.

Students who have completed four Terms of the Freshman

Catechetical Course are excused from Course IV.

#### & III. JUNIOR DIVINITY YEAR.

In each Term Archbishop King's Professor of Divinity delivers a Course of Prelections, on Mondays and Thursdays, at eleven o'clock, in the Divinity School; and on the same days his Assistants lecture at noon. One or more of the Assistants may, as need shall require, lecture at one o'clock. The subjects of these Prelections and Lectures are given below. On Tuesdays and Fridays the Lecturer in the English Bible delivers a Course of Lectures at eleven o'clock (see p. 211). Archbishop King's Professor is authorized to require that Students whom he considers deficient in Greek should attend such of the Tutorial Lectures in Greek as may be deemed suitable. A Student cannot obtain credit for having kept a Term, if he shall have absented himself more than once from any Course of Lectures by Archbishop King's Professor, or by his Assistants, or by the Lecturer in the English Bible in such Term, unless in the case of sickness or some other unavoidable impediment, when the omission of a number of Lectures, not exceeding one-fourth of the whole, may be allowed if approved by the Board.

Each Assistant Lecturer holds an examination of his own class

at the end of each Term.

It is within the discretion of Archbishop King's Professor to deliver a further course of Prelections on a subject of his own choice on Wednesdays at eleven o'clock, attendance at which is compulsory.

The Professor is empowered to require, at his discretion, from the Students, during each Term, written answers to questions on

the subjects of his Prelections.

On the first Lecture day of each Term an Examination is held in a portion of the Greek Testament, at which all Students in the Class, of whatever standing, must present themselves. Students who fail to pass a satisfactory Examination in the appointed Course of Greek on the first day of Term are required to attend Tutorial Lectures in Greek during Term, as provided above.

Examinations in Ecclesiastical History are held on the first days of Lectures in Hilary and Trinity Terms. These two preliminary Examinations must be passed before the Student is allowed to present himself at the Examination with which the Divinity Course for the first year closes.

Six days, not ordinary Lecture Days, are appointed in each Term for English Composition; and credit for four attendances at least is necessary for keeping the Term. A premium of £2 is awarded by the Board in each Term, on the recommendation of Archbishop King's Professor, to the Student who shall have sent in the three written Essays of highest merit.

The following are the Subjects prescribed for the Lectures and Examinations of each Term:—

Michaelmas Term.—On the first Lecture Day Students are examined in the Greek Text of Acts, i.-xii., incl.

(Candidates are expected to be acquainted with the renderings of

the Revised Version of the New Testament.)

Archbishop King's Professor delivers a Course of Prelections on The Revelation of Christ, its evidence and history; and his Assistants lecture on the Greek text of one of the Synoptic Gospels.

The Lecturer in the English Bible delivers a Course of Lectures.

Hilary Term.—On the first Lecture Day Students are examined in the Greek Text of the Epistles to the Galatians and the Philippians; and also in Robertson's History of the Christian Church, Book II., chaps. iv.-vii. (The Early Heretics; and from A.D. 180 to A.D. 313); Book II., chaps. i., ii., iii., from A.D. 313 to A.D. 363.

Archbishop King's Professor lectures on The Doctrine of the Incarnation, and his Assistants lecture on Maclear's Intro-

duction to the Creeds.

The Lecturer in the English Bible delivers a Course of Lectures.

Trinity Term.—On the first Lecture Day Students are examined in the Greek Text of Acts, xiii.—xxviii., incl.; and also in Robertson's History of the Christian Church, Book II., chaps. iv., v. (from A.D. 363 to A.D. 295); Book III., chaps. iii., iv. (Nestorianism; Eutychianism; The Council of Chalcedon, Advance of the Roman See).

Archbishop King's Professor lectures on The Authority, Inspiration, and Criticism of the Bible; and his Assistants lecture on the Greek Text of the Epistle to the Romana.

The Lecturer in the English Bible delivers a Course of Lectures.

When a Student has obtained credit, according to the regulations already specified, for attendance at the Lectures of three Terms, he completes his Junior Year by passing a final Examination, conducted by Archbishop King's Professor and his Assistants, according to the following rules:—The principal Examination is held at the end of Trinity Term, for Students who have regularly commenced attendance with Michaelmas Term; but Supplemental Examinations are held at the end of each Term, for the benefit of Students terminating their Course at other times. A Supplemental Examination is also held at the beginning of Michaelmas Term, before the Lectures of the Senior Class begin. In rejecting a Candidate, Archbishop King's Professor determines whether he may present himself again at the Examination at the end of the next following Term, or whether he must be longer kept back.

Students are required to give notice to Archbishop King's Professor of their intention to present themselves at this Examination. This notice must be given one week before the day of Examination.

The Course for the Examination is as follows:-

- The four Gospels and Acts of the Apostles in English.
   (Candidates are expected to be acquainted with the renderings of the Revised Version of the New Testament.)
- 2. The four Gospels and the Epistle to the Romans in Greek.
- 3. Palev, Evidences; Butler, Analogy, Part I (omitting Chap. 1), Part II, Chaps. 2 and 7 (part i).
- 4. Kirkpatrick, Divine Library of the Old Testament; Hammond, Outlines of Textual Criticism.
- 5 Articles of Religion, I.-VIII. (English and Latin texts); Maclear, Introduction to the Creeds; Liddon, The Divinity of our Lora, Lectures II., IV., V., VII., VII.
- The portions of Robertson's History of the Christian Church appointed for the Hilary and Trinity Term Examinations.
- 7. The Prelections of Archbishop King's Professor.

Failure to satisfy the Examiners in either 1 or 2 will disqualify a Candidate from obtaining credit for this Examination.

An additional Examination for Prizes (attendance on which is not compulsory) is held in Michaelmas Term. See below, "Prizes."

### § IV. SENIOR DIVINITY YEAR.

The Regius Professor receives into his Class those Students only whose names have been returned to him by Archbishop King's Professor as having satisfied all the requirements of the Junior Year, and who have passed the Degree Examination, or are Senior Sophisters, and qualified to present themselves at the Degree

Examination in the following December. During the second year. the Students are required to attend the Regius Professor, and one of his Assistants; also the Lecturer in the English Bible, if they have not obtained credit for this course previously (see p. 211). In Michaelmas and Hilary Terms the Professor delivers Prelections on the Dogmatic Theology of the Church in relation to (a) the Church of Rome, (b) the Eastern Church, (c) Nonepiscopal Protestantism. In Trinity Term the Professor delivers Prelections on the Philosophy of Religion.

The Professor is empowered to require, at his discretion, from the Students, during each Term, written answers to questions on

the subjects of his Prelections.

The Regius Professor lectures on Tuesdays and Fridays, and on Wednesdays at his discretion, at 10 o'clock. His Assistants lecture at the same hour on Mondays and Thursdays. The Lecturer in the English Bible lectures on Tuesdays and Fridays at 11 o'clock.

The rules as to the numbers of Lectures to be attended are the

same as in the Junior Year.

#### SUBJECTS OF THE ASSISTANTS' LECTURES.

Michaelmas Term .- The Thirty-nine Articles, with Commentary' as appointed for the Final Examination.

Hilary Term. - The Book of Common Prayer.
Trinity Term. - The portions of the Greek Testament appointed for the Final Examination.

Each Assistant Lecturer holds an examination of his own class

at the end of each Term.

On the first Lecture day of each Term Students are examined in a portion of the Greek Testament. (Candidates are expected to be acquainted with the renderings of the Revised Version of the New Testament.) Students who fail to pass a satisfactory Examination in the appointed Course of Greek on the first day of Term are required to attend Tutorial Lectures in Greek as in the Junior Divinity year.

On the first Lecture days of Hilary and Trinity Terms, an Examination is held in Ecclesiastical History, and Articles or Liturgy, in addition to the portions of the Greek Testament just mentioned. It is necessary to pass these Term Examinations in order to

qualify for the Final Examination.

#### SUBJECTS OF THE TERM EXAMINATIONS.

Michaelmas Term .- The Greek text of the two Epistles to Timothy

and the Epistle to Titus.

Hilary Term .- The Greek text of the First Epistle to the Corinthians; Robertson's History of the Christian Church, Book 111., Book 1v., chaps. i., ii.; Bishop Gibson's Exposition of Articles vi., xxii., xxv., xxvii., xxviii.

Trinity Term .- The Greek text of the Epistle of St. James and of

the two Epistles of St. Peter.

Hardwick's History of the Reformation: —Introduction; chap. i. (Germany): chap. ii. (Switzerland); chap. iv., chap. vii., chap. viii. (Roman Communion, English Communion); Bishop T. W. Drury's How we got our Prayer Book.

Six days, not ordinary Lecture days, are appointed in each Term for English Composition: and credit for four attendances at least is necessary for keeping the Term. A premium of £2 is awarded by the Board in each Term, on the recommendation of the Regius Professor, to the Student who shall have sent in the three written

Essays of highest merit.

The Final Examination is held at the end of Trinity Term, for all Students who have attended and obtained credit for the three preceding Terms of the Senior Divinity year, and have complied with the foregoing regulations. A similar Examination is held at the end of the Michaelmas and Hilary Terms for Supplementalists who have completed their attendance on Divinity Lectures in those Terms respectively. A Supplemental Examination is held also at the beginning of Michaelmas Term, but Students competing at it are liable for the same fees as they pay for the Examination at the end of the Term.

Students are required to give notice to the Regius Professor of their intention to present themselves at the Final Divinity Examination. This notice must be given one week before the day of Examination.

The Examination is conducted by the Regius Professor and his Assistants; and the Professor of Ecclesiastical History takes part in the Examination in his own department. Those Students who have passed the Examination are arranged in three classes, according to their respective answering. No student will be placed in the First Class who has not passed in Hebrew. Students who come out in the first class receive a special Honorary Certificate, in addition to the usual Divinity Testimonium.

The Course appointed for this Examination is as follows:-

- 1. Old Testament .- Genesis-Esther.
- 2. New Testament .- Romans-Revelation.

(Candidates are expected to be acquainted with the renderings of the Revised Version of the New Testament in all the books the Greek of which they have had to prepare for examination in the Divinity School.)

- 3. Hebrew.—Optional. (See the Regulations below.)
- 4. Latin.—Rufinus, In Symbolum Apostolorum (ed. E. F. Morison, Methuen).

- Ecclesiastical History.—The portions of Robertson's History of the Christian Church appointed for the Hilary Term Examination, and the portions of Hardwick's History of the Reformation appointed for the Trinity Term Examination: and also Stokes, Ireland and the Celtic Church (6th edition), Lectures i. -vii.
- Liturgy and Church Government.—The Book of Common Prayer with Procter and Frere's New History of the Book of Common Prayer (1901).
- Greek.—St. Paul's Second Epistle to the Corinthians, and the Epistle to the Hebrews.
- 8 & 9. Articles of Religion (with Bishop Gibson's Exposition).—
   (8) Articles 1.-xvi. (9) Articles xvii. to end.
- A paper of questions on Old Testament, Job-Malachi, with special attention to the Psalms.
- 11. A paper of questions on the public Prelections of the Regius Professor,

All Candidates must take up either Hebrew or Latin. They may take up both.

Any Student who has kept one or more Terms in the Senior Year, may obtain permission to present himself at the Examination at the close of any Term in which he has attended Divinity Lectures, in not less than three of the subjects above numbered 1, 2, 3, 4, 5, and 6; reserving the rest for his Final Examination.

Any Student so dividing the Final Examination must complete it within seven months from the close of his third Term; otherwise he will lose credit for the marks already obtained.

Hebrew.—The following are the Regulations under which Hebrew forms part of the Course prescribed for the final Divinity Examination:

- (a) Those Students who have passed one or more Examination with the Professor of Hebrew shall not be re-examined, but shall receive such marks as the Professor of Hebrew shall have awarded them.
  - (b) Other Students shall be examined in the following Course:— Hebrew Grammar; and Genesis, chaps. i. to iv., and xii. to xv.
- (c) Answering in this Course is to be estimated after the same manner as in the other subjects of the Examination.
- (d) A special Certificate shall be given to such Students as shall have answered creditably in Hebrew at the final Examination, and have not previously obtained the Professor of Hebrew's Certificate.
- (e) At the final Divinity Examination all Students who take up Hebrew may, at their option, substitute it for subject 4 (Latin).

English Bible.—The Lecturer in the English Bible delivers a two years' Course of Lectures on Tuesdays and Fridays at 11 o'clock. It is necessary for every student to obtain credit for attendance on this Course before he can present himself for the Final Divinity Examination. A Student may attend this Course in whole or in part before he has entered the Divinity School, and it is advisable in most cases to do so as early as possible.

When attendance upon the whole Divinity Course has been thus completed, the Divinity Testimonium is given in the following form:

E Coll. SS. Trin. juxta Dublin.

#### § v. ADDITIONAL LECTURES.

In addition to the foregoing Lectures, which are compulsory upon all Divinity Students, instruction is also given upon various subjects in connexion with the Divinity School. These Courses are as follow:—1. Hebrew. 2. Biblical Greek. 3. Ecclesiastical History. 4. Irish. 5. Pastoral Theology. 6. Reading the Liturgy. 7. Church Music. The hours of instruction in these departments are so arranged as not to interfere with those of the Compulsory Lectures. Students are thus enabled to complete their attendance upon any or all of these Courses during the period of their ordinary Divinity studies.

The Professors of Biblical Greek, of Ecclesiastical History, and of Pastoral Theology, the Wallace Lecturer, and the Lecturer in the English Bible, are authorized to grant certificates of attendance on their respective Courses to Graduates who have obtained the Divinity Testimonium, and to them only. (See Order of

Board, July, 1853.)

#### 1. HEBREW LECTURES.

- 1. All Students in Arts, of whatever standing, are permitted to attend Hebrew Lectures, which are continued for three years.
- 2. Students who have completed the first year in Hebrew may obtain from the Professor a Testimonium to that effect.
- 3. To complete the *first* year, the Student must attend three Terms with one of the Assistants to the Professor, the Course being as follows:—

Hebrew Grammar. Genesis, chaps. i. to iv., and xii. to xv.; 1 Kings, xvii. to xxii. and 2 Kings, i. to iii.

He must also pass an Examination in the above Course, to be held at the end of the third Term. Additional credit will be allowed at the Examination to Students who bring up also 2 Kings iv. to ix.

4. Students who have completed two years will be entitled to a Testimonium to that effect.

5. To enter upon the second year, a Student must have kept the

three Terms of the first year, and passed the Examination.

6. Any Student who shall have passed a qualifying Examination to the satisfaction of the Professor, shall be permitted at once

to join the Middle Class at Hebrew Lectures.

7. To complete the second year, the Student must keep three Terms, by attendance on the Lectures of the Professor, and also on the Lectures of one of the Assistants, the Course lectured on by the Assistants being as follows:—

Psalms xlii. to lxxii.

He must also pass an Examination in this portion of the Book of

Psalms, to be held at the end of the third Term.

8. To enter upon the third year, the Student must have kept the two former years, and passed the Examinations; and to complete the year, he must attend the Professor's Lectures for three Terms, and pass an Examination at the end of the third Term. The subject of the Lectures is Proverbs i-xvi, and Isajah xlix-lxvi.

9. Students who have completed three years will be entitled to

a Special Testimonium to that effect.

10. Prizes are given to the best answerers at the Annual Examinations. The names of all Students who pass the Examinations are placed in the order of merit, and published by the Professor.

11. Prizes in Chaldee and Syriac.—At the end of Trinity Term, in each year, Premiums will be given in the Syriac and Chaldee languages, at the Examination for the Hebrew Prizes, on the following conditions:—

1. Candidates must have passed the ordinary Hebrew Examination of the first year.

2. They must answer in the following Course:

Chaldee and Syriac Grammars.

St. Mark's Gospel, ix-xvi, and St. Paul's First Epistle to Timothy, in the Peshitta Version.

The Book of Ruth (in the Hebrew and Chaldee), edited by

C. H. H. Wright.

Candidates for this Prize must give their names to the Professor of Hebrew, on or before the 1st day of June.

#### 2. BIBLICAL GREEK.

The Professor of Biblical Greek delivers a Course of public general Prelections during two of the three Academical Terms of each year.

He also delivers special Lectures on particular books of the LXX. or the New Testament to such Students as may desire to attend them. The subjects and days of Lecture are announced at the beginning of each Term.

The Examination for Prizes is held in Trinity Term. For the regulations and subjects, see under "Biblical Greek, Prizes in."

#### 3. ECCLESIASTICAL HISTORY.

The Professor of Ecclesiastical History delivers a Course of public general Prelections during two of the three Academical Terms of each year. The Course of Lectures is intended to extend over two years.

An Examination for Prizes is held in Trinity Term. For the regulations and subjects, see under "Ecclesiastical History

Prizes."

#### 4. IRISH.

All Students can attend the lectures of the Professor of Irish. For the regulations and Prizes see under "Irish."

#### 5. PASTORAL THEOLOGY.

The Professor of Pastoral Theology delivers a Course of Prelections each Term. The Lectures are delivered on Saturdays at 9.30 a.m., in the Regent House. A Student cannot obtain credit for having kept a Term if he shall have absented himself more than once.

Certificates of attendance on this Course can be given only to

those who have obtained the Divinity Testimonium.

The Professor holds an Examination at the close of Trinity Term, and presents Prizes of £3 and £2 to the best answerers.

It is part of his duty to assist in the reading and criticism of the Sermons of Students in Divinity.

#### 6. READING THE LITURGY.

The Wallace Divinity Lecturer gives instructions once a week

in voice-production and in reading.

These Lectures are attended by members of the Senior Divinity Class, and such members of the Junior Class as Archbishop King's Professor shall direct to attend.

Attendance is compulsory in case of such Students as the

Professors shall direct to join it.

In order to obtain a Certificate—which can be given only to those who have obtained the Divinity Testimonium—Students must attend Lectures in Michaelmas or Hilary, and Trinity Terms.

A Student cannot obtain credit for having kept a Term if he shall have absented himself more than once. A Prize is awarded in Michaelmas and in Hilary Terms; and the Downes' Prizes for "Reading the Liturgy" are awarded in Trinity Term.

#### 7. CHURCH MUSIC.

Instruction is given in Church Music on two days in the week in the College Chapel by the College Organist. Students getting credit for three terms (of which Trinity Term must be one) are entitled to certificates to that effect.

#### § VI. PRIZES.

#### THEOLOGICAL EXHIBITIONS.

For the further promotion of Theological learning, the Board of Trinity College, with the consent of the Visitors, on the 18th of December, 1858, founded "Theological Exhibitions," in place of the Prizes formerly known as the "Divinity Professor's Premiums."

The Examination for these Exhibitions is held each year at the

end of Hilary Term, on the days stated in the Almanac.

To the best answerers at this Examination two Exhibitions are given, one of £60, and one of £40 per annum, provided there be sufficient merit. Each of these Exhibitions is tenable for a period not exceeding three years. In cases of exceptional merit shown by the best answerer, the Board may entertain an applica-

tion for the granting of the Degree of B.1). Stip. Cond.

Candidates for these Exhibitions must not be of more than one year's standing as M.A., reckoned from the Michaelmas Examination of the Senior Freshman year; they must have obtained the Divinity Testimonium; and they must present themselves at the Examination immediately subsequent to the Term in which they have completed their Divinity Lectures. No person can offer himself as a Candidate a second time.

Candidates for these Exhibitions whose names have gone off the College Books, are permitted to replace them on payment of the

Junior Bursar's fee of 15s.

The following is the Course appointed for 1920:-

I.

#### The Old Testament-

(a) Proverbs and Ecclesiastes in the Septuagint.

Commentaries recommended: Toy (Proverbs), M'Neile (Ecclesiastes).

Swete, Introduction to the Old Testament in Greek: Part I, Chapters 1, 2, 3, 5; Part II, Chapters 4, 5; Part III, Chapters 2, 4, 5, 6.

(b) Job, Psalms, Proverbs, Ecclesiastes, Song of Solomon, and Ecclesiasticus, in the Authorized and Revised Versions.

Hastings, Dictionary of the Bible: Article Wisdom, and the Articles on the set books.

Driver, Literature of the Old Testament (International Theol. Library), chapters dealing with Proverbs and Ecclesiastes.

II.

Hebrew .- Proverbs i-xvi (incl.).

Commentary recommended-C. H. Toy, The International Critical Commentary (T. & T. Clark).

#### TII.

The New Testament in Greek. Special Subject-The Acts of the Apostles.

Editions recommended-R. B. Rackham; and R. J. Knowling in The Expositor's Greek Testament.

Articles in Hastings' Dictionary of the Bible: Acts of the Apostles. and Paul the Apostle (the Life; pp. 697-716).

Salmon, Introduction to the New Testament, Lectures iv., v., vi., vii., xviii., and Note v. in Appendix.

Westcott and Hort, The New Testament in Greek-The Introduction. and so much of the Appendix as relates to the Acts of the Apostles.

Kenvon, Handbook to the Textual Criticism of the New Testament (2nd ed.).

J. Armitage Robinson, The Study of the Gospels.

#### IV.

Hooker, Ecclesiastical Polity, Book 5.

The Doctrinal Decrees of the Council of Trent, viz. those passed in Sessions 3, 4, 5, 6, 13, 14, 21, 22, 23, 24, 25, omitting the Decrees on Reformation.

Accessible in the Tauchnitz edition of the Canones, &c. (Leinzig); also in Densinger's Enchiridion (Stahl's edition).

Hardwick, History of the Articles.

Salmon, Infallibility of the Church, Lectures ii., iii., iv., vi., xi., xii., xiii., xiv., xviii.-xxiii.

Duchesne, Christian Worship: its Origin and Evolution, omitting the Appendices (2nd or 3rd English edition).

Waterland, Doctrine of the Eucharist. Reprinted 1896 (Clarendon Press).

R. W. Dale, The Atonement.

- (a) The general facts of Church History up to 700 A.D.
- (b) Eusebius, Ecclesiastical History and The Martyrs of Palestine.
- (c) Special course: Eusebius, E. H., Books v.-vii.

Lawlor, Eusebiana, Essays ii., iii., vi.

Benson, Cyprian.

Smith and Wace, Dictionary of Christian Biography-Articles Tertullianus and Origenes.

#### VI.

Latin-Augustine on St. John, Tractates, xxiv.-xxvii. Text published by G. Bell & Son (London, 1898). Reprinted from Migne, Patrologia latina, xxxvi., col. 1592-1627.

Greek-Justin, Apologies. For text and prolegomena, A. W. Blunt

(Cambridge Patristic Texts).

Smith and Wace, Dictionary of Christian Biography-Articles Augustinus and Justinus Martyr.

#### VII.

[For Candidates who do not hold the Divinity Testimonium; see p. 11.]

The Examination for Theological Exhibitions will be held March 2, 3, 4.

The Examinations for B.D. Degree will be held March 2, 3, 4, 5;

June 1, 2, 3, 4; and December 7, 8, 9, 10.

The following will be, on each occasion, the order of Examination:-

First Day, 10 a.m., Division VI.; 2 p.m., Division II. Second Day, 10 a.m., Division I.; 2 p.m., Division III. Third Day, 10 a.m., Division V.: 2 p.m., Division IV. Fourth Day, 10 a.m., Division VII.

In 1921, the following will be substituted:—In 1., (a) Exodus in the Septuagint: (b) The Pentaleuch and Joshua; in 11., Proverbs, xvii.-xxxi.; in 111., The Epistle to the Romans: in v., Special Course, Eusebius, E. H., Books viii.-x., and Martyrs of Palestine; Lawlor, Eusebiana, Essays iii.-vi.; in v.., Augustine, De Civitute Dei, Books xi., xii., Athanasius, De Incarnatione—in each case with corresponding changes in the collateral books. Other changes may also be made. The whole Course for 1921 will be finally arranged and issued in or before Trinity Term. 1920.

#### ARCHBISHOP KING'S DIVINITY PRIZES.

These Prizes were founded by the Board in the year 1836. They are called Archbishop King's Divinity Prizes, because they are given at an annual Examination held by Archbishop King's Divinity Professor.

This Examination is held in the beginning of Michaelmas Term; and such Students only can be Candidates for the Prizes as are selected by the Examiners at the general Divinity Examination, at the end of Trinity or beginning of Michaelmas Term.

The Course for the Examination is as follows:-

- 1. The four Gospels and Acts of the Apostles, in English.
- 2. The four Gospels, the Acts of the Apostles, and the Epistles to the Romans, Galatians, and Philippians, in Greek. Special subject: for 1919, The Gospel according to St. Luke: and for 1920, The Acts of the Apostles.
  - 3. Butler's Analogy.
  - 4. Paley's Evidences and Hora Paulina.
- 5. Maclear's Introduction to the Creeds, and Swete's The Apostles' Creed.
  - 6. Sanday on Inspiration, Lectures I., II., III., VI., VIII.
- 7. Liddon on The Divinity of our Lord, and Kirkpatrick's Divine Library of the Old Testament.
  - 8. Robertson's History of the Christian Church, A.D. 64-590,
  - 9. The Prelections of Archbishop King's Professor,

Two Prizes, one of £12 and the other of £8, are given to the best answerers (if sufficient merit be shown by the Candidates): and Certificates to such as answer sufficiently.

The Certificate cannot be given to any Student until he has completed his whole Divinity Course, and obtained the Divinity

Testimonium.

### BISHOP FORSTER'S DIVINITY PREMIUMS.

In the year 1738, the sum of £200 was given to the College by the Right Rev. Nicholas Forster, D.D., Lord Bishop of Raphoe, sometime Senior Fellow of Trinity College, Dublin, on condition that it should be applied to the purpose of encouraging the study of Theology, in connexion with the Lectures of Archbishop King's Professor of Divinity. When the office of Archbishop King's Professor was placed on a new foundation, in the year 1836, the endowment of Bishop Forster was included in the Prizes then instituted by the Board, for the Junior Divinity Class. The fund, along with the unappropriated balance of interest, produces annually about £14 10s., and this annual interest is distributed in Premiums to the two best answerers in the subjects of the Lectures of Archbishop King's Professor, at the Examination for Archbishop King's Divinity Prizes, if sufficient merit be shown by the Candidates.

CARSON BIBLICAL PRIZE.

In Michaelmas Term, 1891, the Rev. Joseph Carson, D. D., Vice-Provost, gave to the Provost and Senior Fellows of Trinity College the sum of £500, to found a Prize for the purpose of promoting among Divinity Students an accurate knowledge of the text of the English Bible. The Examination for the Prize is under the control and management of Archbishop King's Professor of Divinity, subject to such rules and regulations as the Provost and Senior Fellows may from time to time prescribe.

The Examination is held in the Hilary Term of each year. The Prize is open to all Students in the Junior Divinity Class, and the Examination, which is public, is conducted viva voce.

No Student can compete for the Prize a second time.

The fund produces annually about £15 10s.

For the purpose of the Examination, the subject is divided into four parts, as follows:—

r. Pentateuch, and Historical Books.

II. Job to Malachi.

III. Gospels, and Acts of the Apostles.

IV. Epistles, and Revelation.

In each year, particular books of the above Course will be prescribed for special Examination.

The hours of Examination are the same as those appointed for Moderatorship Examinations, viz. from 9 to 12, and from 2 to 5. Special Books appointed:—

For 1920-Old Testament.-The Psalms.

New Testament,-1 and 2 Corinthians.

VOL. I.

### TOPLADY MEMORIAL SCRIPTURE PRIZES.

Rev. William Batley, M.A., presented £210 to the Board in Trinity Term, 1906, to form an endowment for a Prize in memory of Rev. Augustus Montague Toplady, Hymn-writer and Theologian.

The Prizes are given for knowledge of Holy Scripture (as

distinct from general theological knowledge).

No book except the Bible (or Greek Testament) may be given as a Prize in connexion with this endowment which contains, in the opinion of those appointed to control the selection of the prize books, direct theological teaching.

The Prize, amounting to about £6 5s., is awarded annually to the Candidate next in merit to the Prizeman at the examination

for the Carson Biblical Prize.

#### DOWNES DIVINITY PREMIUMS.

In the year 1797, these Premiums were established out of a fund bequeathed to the College for the purpose, by the Rev. Dr. Downes, of Waterford. The fund produces annually about £39. The regulations concerning these Prizes (which are open to all Students in Divinity during the two terms antecedent to that in which the examinations are held) are as follows:—

- 1. Written Composition.—The Examiners are the Regius Professor of Divinity, Archbishop King's Professor of Divinity, and the Professor of Oratory. The subject is announced in the last week of Hilary Term by Archbishop King's Professor. On an appointed day in Trinity Term the Candidates deliver discourses on the proposed subject without hesitation, no discourse to exceed one quarter of an hour in delivery. A Premium of about £12 is adjudged to the best, and one of about £8 to the next best, or such inferior Premiums as they shall appear to merit, regard being had as well to the manner of pronouncing such discourses as to the matter of them. No Candidate can compete oftener than three times.
- 2. Oratory.—Prizes of about £6 and £4 are placed at the disposal of the Professor of Pastoral Theology each Trinity Term, to be awarded at his discretion to those Students who have profited most by his instructions in preaching and in the delivery of sermons. No Candidate can obtain either Prize a second time.
- 3. Reading the Liturgy.—Prizes of about £5 and £2 are placed at the disposal of the Wallace Lecturer each Trinity Term to be awarded at his discretion to those Students who have profited most by his instructions. No Candidate can obtain either Prize a second time. Prizes of £1 each Michaelmas and £1 each Hilary Term, are also placed at his disposal.

The following is an extract from the will of Dr. Downes, respecting the disposal of unappropriated Premiums:—

"And whereas it may from time to time so happen that Candidates meriting such Premiums may not appear, in such case, the savings in each year shall go to the augmentation of the fund, and be laid out, from time to time, in the purchase of Government securities, the interest thereof to be added to the fund for the increase of said Premiums in future."

Dr. Downes also founded certain Exhibitions, to be held by Students in Divinity. The conditions on which these Exhibitions are awarded will be found under the title "Downes Exhibitions."

### CHURCH FORMULARIES PRIZE.

An Annual Prize of £10 was founded in the year 1868, by the Right Hon. Robert R. Warren, late M.P. for the University, in order to encourage the study of the Creeds and Articles of the Church. This Prize is given to the best answerer in the Church Formularies at the Final Divinity Examination held by the Regius Professor in Trinity Term, provided sufficient general merit be shown.

O'REGAN MEMORIAL PRIZE.

An Annual Prize of £5 is awarded to the best answerer at the

Final Divinity Examination.

It was founded in 1918 by the son of the Ven. John O'Regan, Archdeacon of Kildare (Sch. 1841), to perpetuate the memory of his father, who obtained full marks from each of the nine examiners at the Final Divinity Examination in 1846.

A memoir of Archdeacon O'Regan, by his son, is also presented

to the winner.

#### RYAN PRIZE.

In 1812 a debenture of £100 was granted to Trinity College by

Edward Ryan, Esq., for the purpose of founding a Prize.

At the end of Trinity Term this Prize is awarded by Archbishop King's Professor to that member of the Junior Divinity Class (being under M.A. standing) who shall have been most diligent in attendance at Composition Lectures. The quality of the Essays written during the year will be taken into consideration.

The Fund invested produces annually about £3. The Prize

is pavable in November by the Bursar.

ROBERT KING MEMORIAL PRIZE IN ECCLESIASTICAL HISTORY.

On June 28, 1902, the friends of the late Rev. Robert King, B.A. (Sch., 1835), presented the sum of £112 to the Board for the purpose of founding a Prize in memory of him. The following conditions were suggested by the subscribers, and agreed to by the Board:—

1. That the money be invested, and the interest be awarded as a Prize

to the best answerer in Ecclesiastical History at the Final Divinity Examination held in Trinity Term, provided sufficient merit is shown.

2. That the Prize be known as the "Robert King Memorial Prize in

Ecclesiastical History."

3. That, if in any year sufficient merit is not shown, the interest for that year be added to the capital.

The fund invested produces annually about £3 10s.

### BEDELL SCHOLARSHIPS,

The Committee of the Irish Society, with the sanction of the Provost and Senior Fellows of Trinity College, founded in 1845 two Scholarships in the University, denominated "The Bedell Scholarships," and placed them under the superintendence of Trustees, named by the founders.

The Scholarships are designed for such Students only as give reasonable hope that they will be competent on their ordination to preach in the Irish Language. One Scholar is elected whenever a vacancy takes place.

The regulations are as follow:-

- 1. The value of each Scholarship shall be £20 per annum, payable half-yearly, in the last weeks of October and April.
- 2. An Examination of Candidates shall be held annually, as soon after the Trinity Term Examination as possible, on a date to be fixed by the Trustees, in conjunction with the Professor of Irish.
- 2. The Scholarships shall be open to Students of any standing in the University, unless they be Irish Sizars; and shall be tenable by them for four years, if they shall keep their names so long on the College Books, and have not been admitted to Holy Orders.
- 4. They shall be required to reside in or near Dublin, and to attend the Lectures of the Professor of Irish (if not specially exempted by the Trustees of this fund), and to attend also Divinity Lectures, when of sufficient standing.
- 5. They shall be required to pass an Annual Examination, at the commencement of Michaelmas Term, in the Irish Language. The subjects of this Examination to be fixed by the Trustees, in conjunction with the Professor of Irish.
- 6. On the day of payment in April, the Scholars shall produce to the Trustees, or their Secretary, a certificate from the Professor of Irish, that they have satisfactorily passed the above-mentioned Annual Examination in Irish; they shall also obtain from their College Tutors, and at the same time present to the Trustees, or their Secretary, a certificate of the judgments and Honors. if any, which were given to them at the Term, Catechetical, and Divinity Examinations during the previous year.
- 7. On failure of any of these conditions, the payment then due shall be withheld; and on a second failure, the Scholarship shall become void.
- 8. The names of the Candidates, and their qualifications, shall be returned, after the Examination, to the Trustees, in whom the election shall be vested.

At the Examination for the Bedell Scholarship, the best answerer of the unsuccessful Candidates, if recommended by the Professor of Irish, obtains a prize of £10.

The following subjects have been appointed for the Examina-

tion for the Bedell Scholarship:-

- 1. Irish Grammar.
- 2. Translation of the Gospels from Irish into English, and vice versa.
- 3. The Lord's Prayer Creed, and Ten Commandments, in Irish, by heart: the Creed proved from Holy Scripture.
- 4. The Thirty-nine Articles proved from Holy Scripture.
- 5. Composition.

### ANNUAL EXAMINATIONS.

### First Year.

- 1. Translation of Pentateuch.
- 2. Irish Prayer Book, Morning Prayer.
- 3. Church Catechism in Irish by heart with Scripture Proofs.
- 4. Irish Composition.

### Second Year.

- 1. Translation of Epistles.
- 2. Irish Prayer Book, Evening Service and Litany.
- 3. Irish Composition.
- 4. Declamation in Irish (Extem-

### Third Year.

- 1. Historical Books of Irish Bible.
- Irish Prayer Book. Occasional Prayers, &c., Holy Communion, and Baptismal Office.
- 3. Irish Composition.
- 4. Declamation in Irish.

### . Fourth Year.

- 1. Remaining Books of Irish Bible.
- 2. Irish Prayer Book, Marriage and Burial Offices and Paalms.
- 3. Irish Composition.
- 4. Declamation in Irish.

### KYLE IRISH PRIZE.

A Prize for the encouragement of the Study of the Irish Language was founded in the University in 1852, in commemoration of the Right Rev. Samuel Kyle, Bishop of Cork, Cloyne, and Ross, and formerly Provost of Trinity College. The following are the Resolutions entered into by the Trustees of the Fund, and agreed to by the Provost and Senior Fellows:—

- 1. That the Funds collected shall be invested in Government securities, or Bank Stock, in the joint names of the Provost and Senior Fellows of Trinity College, the Professor of Irish, and the Dean and Archdeacon of Cork, all for the time being.
- 2. That the Endowment shall consist of one year's interest of the principal sum so invested.
- 3. The Kyle Irish Prize is to be competed for by Candidates in priority as follows:—(1) Diocese of Cork, Cloyne, and Ross, (2) Limerick. Ardfert, and Aghadoe: (3) Killaloe, Kilfenora, Clonfert, and Kilmacaduagh; (4) Tuam, Killala, and Achonry: (5) Raphoe. Failing deserving Candidates from these Dioceses. Candidates are to be accepted from any other part of Ireland (Resolution of Board, June 25, 1904).
  - 4. The Kyle Prize to be attainable only by Divinity Students, at an annual Examination in the Irish Language, held during their Divinity Course.

5. The Divinity Student so obtaining the Prize may again become a Candidate for it in the next succeeding year, but not oftener, nor can he hold it for more than two years.

6. The Candidates for Examination shall be examined in the Irish Grammar, the Four Gospels, the Acts of the Apostles, the Epistle to the Romans, 1st and 2nd Timothy, the Epistle to the Hebrews, and

Composition.

7. In the event of there being, in any year, no Candidate for the Prize, or want of sufficient merit, the interest of the sum so invested in the Funds shall be added to the principal sum.

The fund invested produces annually about £11.

#### THE WILLIAM BROOKE EXHIBITION.

## (Greek Testament.)

A sum of money having been subscribed in memory of the late Right Hon. William Brooke, the following resolutions were adopted at meetings of the "William Brooke Memorial Committee," held on the 1st and 8th of November, 1881, and on the 27th of February, 1882:—

"That an Exhibition for Students attending Divinity Lectures, preparatory to taking Orders in the Church of Ireland, shall be founded as a Memorial of the late Right Honourable William Brooke."

"That acquaintance with the Greek Testament shall be the qualification for such Exhibition, regard being also had to personal character, and insufficiency of private means."

The following Regulations were also adopted: --

- 1. The sum of £500, and such other sums as may be contributed for the purpose, shall be held by the Representative Body of the Church of Ireland for the use of the "William Brooke Exhibition."
- 2. The interest of this Fund shall be paid every year to an Exhibitioner elected by a Board, consisting of the Archbishop of Dublin, the Regius Professor of Divinity, and the Professor of Biblical Greek, all for the time being; two of whom shall form a quorum.
- 3. Candidates for this Exhibition shall satisfy the Board as to their good character, their intention to enter the Ministry of the Church of Ireland, and the insufficiency of their means to pay the expenses of a theological education.
- 4. In electing a Candidate so qualified, regard shall be had to his answering in the Greek Testament at the final Examination of the Junior Divinity Class, or at such other Examination as shall be appointed by the Board, who shall also have power to withhold the Exhibition if they shall not be satisfied with the qualifications or answering of the Candidates.
- 5. The Candidate so elected shall hold the Exhibition for one year on condition of his proceeding regularly with the Divinity Course during that year.

- 6. In the event of the interest for any year not having been wholly expended during that year, the Board shall place the unexpended portion to the credit of the capital of the Fund.
- 7. It shall be lawful for the General Synod of the Church of Ireland by Act duly passed, and also for the Board by Resolution, to vary the Regulations of the said Exhibition, as may from time to time appear expedient, in any manner consistent with the Resolutions adopted by the Committee at their meetings aforesaid: provided that any Resolutions passed by the Board for this purpose shall be presented to the General Synod at its first meeting after the passing of such Resolution.

The following Exhibitions are awarded without a Special Examination:—

#### BUTCHER EXHIBITIONS.

A sum of money having been subscribed in memory of the Most Rev. Samuel Butcher, p.p., late Bishop of Meath, the following plan for the application of the Fund was agreed to at a Meeting of the "Butcher Memorial Committee," held on 24th April, 1877, the Provost in the Chair, and adopted by the General Synod, April 26th, 1877:—

The interest on the money in the hands of the Representative Body to the credit of the above Fund (when it shall have reached the sum of £2500), and of such further sums as may be paid in to its credit as subscriptions, or unallocated interest (as hereinafter referred to), to be applied in providing Exhibitions in connexion with the Divinity School of the Church of Ireland, to be called the "Butcher Exhibitions," under the following rules:—

- 1st. That the Exhibitions be awarded by a Board, consisting of the Archbishop of Dublin, for the time being; the Bishop of Meath, for the time being; and the Regius Professor of Divinity, for the time being; or (in the event of there being no Regius Professor of Divinity) the Professor who may discharge the duties now discharged by him; two of whom shall form a quorum.
- 2nd. That the Exhibitions be conferred on meritorious Divinity Students who purpose entering the ministry of the Church of Ireland, and who in consequence of their limited means may require assistance in completing their theological education, regard at the same time being had to their attainments and their general fitness for the ministry of the Church.
- 3rd. That these Exhibitions be conferred on Students who shall have completed their Junior Divinity year, and be tenable during their Senior year, on condition of their duly proceeding with their Divinity Course.
- 4th. That the Board determine the number and amount of the several Exhibitions, provided that the amount of any one shall not be more than £50 or less than £25.
- 5th. That in the event of there not being a sufficient number of deserving and qualified Candidates, or the entire interest on the Fund within any year not being expended, from any other cause, the Board be empowered to place the unapplied portion of the annual interest to the credit of the capital of the Fund.

6th. That the Exhibitions be paid quarterly, on 1st Oct., 1st Jan., 1st April, and 1st July, in each year, by an order on the Representative Body, signed by the Regius or other Professor of Divinity on the Board.

7th. That it be in the power of the General Synod, on the application of the Board, to vary the foregoing regulations as circumstances may

require.

Sth. That in the case of unavoidable absence, any member of the Board be empowered to appoint, by writing, a substitute to act for him.

### DAUNT MEMORIAL EXHIBITIONS.

A sum of money having been subscribed in memory of the late Very Rev. Achilles Daunt, Dean of Cork, the following plan for the application of the fund was adopted at a Meeting of the Daunt Memorial Committee, held June 26, 1879, the Bishop of Cashel in the Chair, and approved by the General Synod of the Church of Ireland, April 27, 1880:—

1. That the Exhibitions be awarded by a Board, consisting of the Archbishop of Dublin, for the time being; the Regius Professor of Divinity, for the time being, or (in the event of there being no Regius Professor of Divinity) the Professor who may discharge the duties now discharged by him in connexion with the Divinity School; and the Incumbent of St. Matthias's Church, for the time being; two of whom shall form a quorum.

2. That the Exhibitions be conferred on meritorious Divinity Students who purpose entering the ministry of the Church of Ireland, and who, in consequence of their limited means, may require assistance in completing their theological education, regard at the same time being had to their attainments and their general fitness for the ministry of the Church.

That these Exhibitions be conferred on students who shall have commenced their Junior Divinity year, and be tenable during the Junior year, on condition of their duly proceeding with

their Divinity Course.

 That the Board determine the number and amounts of the several Exhibitions, provided that the amount of any one shall not be

more than £40 or less than £20.

5. That in the event of there not being a sufficient number of deserving and qualified candidates, or the entire interest on the fund within any year not being expended from any other cause, the Board be empowered to place the unapplied portion of the annual interest to the credit of the capital of the fund.

6. That the Exhibitions be paid quarterly, on 1st October, 1st January, 1st April, and 1st July in each year, by an order on the Representative Body, signed by the Regius or other Pro-

fessor of Divinity on the Board.

That it be in the power of the General Synod, on the application of the Board, to vary the foregoing regulations as circumstances

may require.

 That in the case of unavoidable absence, any member of the Board be empowered to appoint, by writing, a substitute to act for him. The Regius Professor of Divinity receives applications for the Daunt and Butcher Exhibitions in the first week of Divinity Lectures of Michaelmas Term.

### SALMON EXHIBITION.

This. Exhibition, of the value of £20, being the interest on a sum of £500 left in the hands of the Representative Church Body by the late Rev. George Salmon, D.D., sometime Regius Professor of Divinity, and afterwards Provost of Trinity College, to be applied "as the interests of the Divinity School may require," is awarded annually in Michaelmas Term on the same conditions as the Daunt Memorial Exhibitions. The "Salmon Exhibition" is awarded by a Board consisting of the Archbishop of Dublin, the Provost of Trinity College (if a Member of the Church of Ireland, or, failing him, the Senior of the Fellows who is a Member of that Church), the Regius Professor of Divinity, and Archbishop King's Professor of Divinity, the Archbishop of Dublin having a casting vote in case of an equality of votes.

### CARSON MEMORIAL EXHIBITION.

In Michaelmas Term, 1898, a sum of £180 Bank of Ireland Stock, equivalent to about £700 cash, was given by Miss Frances Anna Carson to found an Exhibition in the Divinity School, in memory of her father, the late Rev. Joseph Carson, D.D., Vice-Provost of Trinity College. The sum yields annually about £20.

The following Regulations were suggested by the donor, and have been adopted by the Provost and Senior Fellows:---

- 1. The Exhibition shall be called the Carson Memorial Exhibition.
- 2. It shall be awarded annually by a Board consisting of the Provost, the Regius Professor of Divinity, and Archbishop King's Professor.
- 3. This Board shall, in Michaelmas Term, elect as Exhibitioner a Student who, in that Term, shall have entered the Senior Divinity Class. and shall declare his intention of offering himself for the ministry of the Church of Ireland or some Church in communion therewith.
- 4. In electing, the Board shall have regard to the character, ability, attainments, and general promise of fitness for the sacred office, of such Student, as well as to his need of pecuniary assistance.
- 5. The Exhibitioner is entitled to receive in December the dividend of the preceding August, on his producing a certificate from the Regius Professor, that he has satisfied the requirements of the School to the end of Michaelmas Term; and the February dividend in June, on production of a similar certificate for Trinity Term.
- 6. The Exhibitioner shall be required, on election, to promise that he will not receive Holy Orders until he shall have obtained the Divinity Testimonium.

#### WALLACE EXHIBITION.

In Trinity Term, 1899, the Rev. William Wallace, D.D., LITT.D., gave to the College a sum of £500 to found an Exhibition in the Divinity School.

The following Regulations have been adopted by the Provost

and Senior Fellows :-

- 1. The Exhibition shall be called the Wallace Exhibition.
- 2. It shall be awarded annually by a Board consisting of the Provost, the Regius Professor of Divinity, and Archbishop King's Professor, provided always, that if the Provost for the time being be not a member of the Church of Ireland, the Senior of the Fellows who is such shall take his place on the electing Board, it being the intention of the Donor that the Board shall always consist of Members of the Church of Ireland.
- 3. The remaining Regulations shall correspond with those in force for the Carson Memorial Exhibition.

The Fund given by Dr. Wallace produces annually about £13.

### WALLACE DIVINITY SCHOOL AID FUND.

In the month of July, 1903, the Rev. William Wallace, D.D., Litt.D., deposited a sum of £600 with the Bursar of Trinity College, Dublin, as the nucleus of a Fund to aid the Divinity School of Trinity College, in any way expedient, and specially if it be found fitting to help in instances coming under the knowledge and discretion of the Board of Trustees appointed in 1899 for the Wallace Exhibition, otherwise called the "Electing Board" of that Exhibition.

The Fund shall be called the "Wallace Divinity School Aid Fund." The Trustees shall have the power, in the first instance, to draw on the Bursar annually for the average sum of £50, to be expended in aiding any Student or Students of the Divinity School in defraying the cost of residence within the College during their attendance upon Lectures, the amount of aid and its direction and continuance being at the discretion of the Trustees.

The Trustees shall not be bound to expend any part of the Fund, if the suggested purpose of the Fund cannot be secured; any interest accruing being added to the Capital of the Fund. At the end of six years the Trustees shall determine whether the intention of the Founder should be revised in the interest of the Divinity School, the Board of Trinity College giving their consent. The Trustees shall also inquire into the condition and prospects of the Fund at the end of this period.

Any Student aided by this Fund must make the declaration of intention expressed in the Regulation of the Carson and Wallace

Exhibition existing at the present date.

In the event of the Divinity School ever being separated from Trinity College, Dublin, the said Trustees shall be the Trustees of all moneys given or bequeathed to this Fund at any time, and shall use such moneys for the general object of aiding the Teachers and Students of the Divinity School as shall seem to them most expedient.

### BELSHAW SCHOLARSHIPS.

In the year 1911 Mr. Robert Redman Belshaw founded four Scholarships to be awarded, one each year, if suitable candidates present themselves. A ('andidate must be a Student in the Divinity School and a Student in Arts of Trinity College, Dublin. He must also have offered himself to, and have been accepted by, the Church Missionary Society as a fit person to be trained to become a Missionary of the Gospel in Foreign Parts. The Scholarships are to be called, The Belshaw, The Beddy, The John Jacob, and The Christian Jacob, respectively. Each Scholarship is of the annual value of £40, and is held for two or three years as the Trustees may direct. The Scholarship is awarded to the best answerer amongst the suitable Candidates at an examination to be held not oftener than once a year. Candidates should send their names and lists of qualifications to Archbishop King's Professor of Divinity as soon as possible after the beginning of the Academic Year in October. Women intending to be Missionaries. and provisionally accepted as such, are eligible for these Scholarships provided they are Students in the Divinity School.

## ARRANGEMENTS FOR 1919-20.

I.—Lectures.								
		Begin		E	ad			
MICHAELMAS TRRM, 1919								
Senior Cluss, .								
Junior ,, .	Thurs.,	Oct. 23,		Thurs.,	Dec. 11.			
Hebrew, .	Tues.,	Nov. 4,	*	Tues.,	Dec. 16.			
Pastoral Theology,	Sat.,	Nov. 1,		Sat.,	Dec. 6.			
HILARY TERM, 1920 :-								
Senior Class, .	Fri.,	Jan. 23,		Tues.,	Mar. 16.			
Junior ,, .								
Hebrew, .		Feb. 3,						
Pastoral Theology,								
TRINITY TERM, 1920 :-								
Senior Class, .	Fri.,	April 23,		Tues.,	June 15.			
Junior ,, ,	Thurs.,	April 22,		Thurs.	June 17.			
Hebrew, .	Thurs.,	May 6,		Tues.	June 15.			
Pastoral Theology,	Sat.,	May 1,		Sat.,	June 5.			
MICHAELMAS TERM, 1920	*							
Senior Class, .	Fri.,	Oct. 22,		Tues.,	Dec. 14.			
Junior ,, .	Thurs.,	Oct. 21,		Mon.,	Dec. 13.			
Hebrew, .	Thurs.,	Nov. 4,		Tues.,	Dec. 14.			
Pastoral Theology.								

## II .- Ordinary Examinations.

M	COLT A	DT M	40 1	TERM.	1919	

Senior Class	s (1st Supplemental),		Tues.,	Oct.	21.
31 32	(2nd ,, ),	•1	Sat.,		
Junior ,,	(1st Supplemental),		Mon.,	Oct.	20.
	(2nd)		Han	Dag	19

## HILARY TERM, 1920 :-

Senior Class (Supplemental), . . Wed., Mar. 17.
Junior , , , . . Fri., Mar. 19.

TRINITY TERM, 1920 :--

Senior Class (Final), . . Wed., June 16.
Junior ,, (General), . . Fri., June 18.

MICHAELMAS TERM, 1920 :-

Senior Class (1st Supplemental), . . . Tues., Oct. 19.
,, ,, (2nd ,, ), . . . Wed., Dec. 15.
Junior ,, (1st ,, ), . . . Mon., Oct. 18.
,, ,, (2nd ,, ), . . Tues., Dec. 14.

### III.-Entrance Examinations.

MICHAELMAS TERM, 1919, Wed., October 22.
HILARY TERM, 1920, Sat., January 24.
TRINITY TERM, 1920, Wed., April 21.
MICHAELMAS TERM, 1920, Wed., October 20.

## IV .- Exhibition and Prize Examinations.

MICHAELMAS TERM, 1919, Archbishop King's Prizes and Bishop Forster's Premiums, Wed., Oct. 22.

HILARY TERM, 1920, . Carson and Toplady Prizes, Tues., Feb. 24.

Theological Exhibitions, Tues., Wed., and
Thurs., March 2, 3, 4.

TRINITY TRRM, 1920, . Biblical Greek Prizes.

Ecclesiastical History Prizes.

Dr. Downes' Premiums:—Written Essay, Wed., May 12; Extempore Speaking, Wed., May 19; Reading the Liturgy, Wed., May 26, Wed., June 2.

Wall Biblical Scholarship. Hebrew Premiums.

MICHAELMAS TERM, 1920, Archbishop King's Prizes and Bishop Forster's Premiums, Wed., Oct. 20.

### LAW SCHOOL.

THE Law School of the University of Dublin is under the control of the Provost and Senior Fellows of Trinity College, who, however, act in concurrence with the Benchers of the King's Inns.

The Lectures delivered in the Law School of the University, taken along with those delivered at the King's Inns, constitute a complete Course of instruction in Theoretical, Scientific, and Practical Law.

Students joining the Law School are requested to enter their names with the Registrar of the School at the beginning of Michaelmas Term. Certificates for attendance at Lectures (Ordinary or Honor), or for passing examinations, and recognition of professional privileges, will be granted to Registered Students only. Solicitors' Apprentices who are not Students of Trinity College are required to pay a fee of £3 3s. to the Junior Bursar before presenting themselves at an examination.

The staff of the Law School consists of the following:-

The Regius Professor of Laws.<sup>a</sup>

The Regius Professor of Feudal and English Law.

The Professor of Civil Law and General Jurisprudence.

The Reid Professor of Constitutional and Criminal Law.

The Reader in Indian Law.

### REGULATIONS.

## Regius Professor of Laws.

The Regius Professor of Laws lectures on Jurisprudence and International Law on Wednesdays and Saturdays at 10 o'clock, a.m., and is bound to deliver not less than twelve Lectures in each of the three College Terms.

The Subjects of the Lectures are as follows :-

MICHAELMAS TERM.

The elements of Analytical Jurisprudence.

HILARY TERM.

The nature, source, and development of International Law. The rights and duties of States in time of peace.

TRINITY TERM.

International Disputes. The Law of War. The Law of Neutrality.

a The Professorship, in the Statutes of Charles I., is described as the Profession of Jurisprudence, and the Professor, in the Letters Patent of Charles II., is styled, "Our Professor of the Laws." In the Decrees of the Board and Visitors, the title generally used is that of the Professor of Civil Law. The above is the style adopted by the Professor in his official acts.

## Regius Professor of Feudal and English Law.

The Regius Professor of Feudal and English Law lectures (on Wednesdays and Saturdays at 9 o'clock, a.m.) on The Law of Property, and is bound to deliver not less than twelve Lectures in each of the three College Terms.

The Subjects of the Lectures are as follows :-

MICHAELMAS TERM. The origin and development of the law of Real Property. Tenure and Estates. Freehold and Leasehold Interests, Uses and Trusts.

HILARY TERM. Future Interests. Co-Ownership. Mortgages. The Transfer of Ownership inter vivos and on death.

TRINITY TERM. Involuntary Alienation. Incorporeal Hereditaments (including Easements). The Irish Land Acts and Land Purchase Acts.

[The following text-books may be referred to as dealing with the matters discussed in the Lectures: Williams, Real Property; Strahan and Baxter, General View of the Law of Property; Goodeve, Modern Law of Real Property.]

## Professor of Civil Law and General Jurisprudence.

The Professor of Civil Law and General Jurisprudence lectures in each of the three College Terms on Tuesdays and Fridays at 9 o'clock, a.m.

The Subject is Roman Law, and the Book used will be :-

The Institutes of Justinian (Moyle's Edition).

## Reid Professor of Constitutional and Criminal Law.

The Reid Professor lectures during the year on the following subjects:—

MICHAELMAS TERM. The Principles of Criminal Law.

HILARY TERM. Constitutional Law.

TRINITY TERM. The Law of Evidence.

The Reid Professor lectures on Mondays and Thursdays at 19 o'clock, a.m., and twelve Lectures are delivered in each Term. He is bound to publish in each year six of these Lectures. The Lectures on Penal Legislation are open to the public. A fee of One Guinea a Term is payable by other Students (not being Students of Trinity College or the King's Inns) who attend the second and third Courses of Lectures.

### Reader in Indian Law.

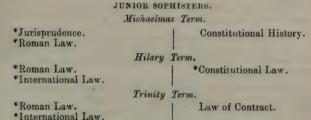
The Reader in Indian Law lectures selected Candidates for the Indian Civil Service.

The Ordinary Law Lectures are open to Students and to the Public, save as above mentioned, without payment, and no Fee is required from Students of the King's Inns beyond that already paid by them on admission into that Society.

### Honor Lectures.

Honor Lectures are delivered on the Law subjects of the Honor, Prize, and Moderatorship Courses by the Professors of the Law School: see under Legal and Political Science for Courses.

These Lectures are as follows:-



Lectures marked thus \* are intended to supplement the ordinary Lectures on the given subject.

#### SENIOR SOPHISTERS.

Michaelmas Term.

Historical Jurisprudence. Law of Torts.

Equity. Hilary Term.

Equity. Common Law.

Trinity Term.

Private International Law.
Equity and Real Property Cases. Legal History.

Lectures on Economics, Political Science, and Economic History are also available for Junior and Senior Sophisters.

It is the duty of each Professor to attend the Examination in person while the Students are engaged upon his Paper. In case he is unable so to attend, he is bound to give notice thereof to the Registrar of the Law School. On receiving such notice, the Registrar is required to provide a substitute from among the Fellows and Professors, whose duty it is to keep the Hall during such Examination.

The Professors are bound at the end of Michaelmas and Hilary Terms to furnish to the Senior Lecturer a List of all Students having their names on the College Books, and of all King's Inns Students who have credit for the Term. At the end of Trinity Term they are bound to furnish to the Senior Lecturer a List of all Students having their names on the College Books, and of all King's Inns Students who have credit for the Term, as well as of those who have obtained Academic credit for the year.

#### KEEPING OF TERMS.

A Term is kept by attendance at three-fourths of the Lectures, and by passing the Examination held at the end of the Term.

A General Examination is held by each Professor in Trinity Term at the end of the Academic year.

To obtain Academic credit for the year with any Professor, Students must keep three consecutive Terms, commencing with Michaelmas Term, and pass the General Examination held at the close of Trinity Term.

Any Student who fails to pass a Term Examination may, with the permission of the Examiner, present himself at a Supplemental Examination to be held in the following Term.

For any Supplemental Examination a fee of £1 1s, must be paid to the Junior Bursar before the Examination.

To obtain the certificate required by the Benchers, the answering at a Term Examination must not fall below 30 per cent. with any Examiner, and at a General Examination an average of 40 per cent. with two Examiners is required, and the answering must not fall below 35 per cent. with either.

Students are classed at the Term Examinations if their answering reaches 50 per cent., and at the General Examination if it reaches 60 per cent.

### LAW PREMIUMS.

At the end of Trinity Term Prizes amounting to £45 may be awarded by the Professors at their discretion to the best answerers among the Students whose names are on the College Books, and who have obtained Academic credit for the year. The merits of the Candidates will be determined by the aggregate of marks obtained by them at the three Examinations which follow, respectively, the Michaelmas, Hilary, and Trinity Courses of Lectures.

### DUTIES OF THE REGISTRAR OF THE LAW SCHOOL.

It shall be the duty of the Registrar of the Law School to copy the Lists furnished by the Professors to the Senior Lecturer into separate Books, to be provided for that purpose.

It shall be the duty of the Registrar of the Law School to give to all Students, including those of the King's Inns, such certificates

of attendance as they may be entitled to and may require.

The Registrar of the Law School shall be authorised to issue Certificates of Attendance on the lectures of the Professors of the Law School by Solicitors' Apprentices who are not Students of Trinity College, on condition that for each year of such attendance, a fee of £3 3s. shall be paid to the Junior Bursar, Trinity College, by every such apprentice who requires a Certificate.

REGULATIONS of the University with regard to Degrees in Law.

The Regius Professor of Laws is Moderator in all disputations for Degrees in Law, and presents the Candidates for those Degrees at the Commencements.

The Degrees are Bachelor and Doctor in utroque Jure.

## 1. Bachelor in Laws (LL.B.).

A Bachelor in Laws must have taken the Degree of Bachelor in Arts or the Degree of Master in Arts of the University of Dublin (unless he seek the degree ad eundem as an LL.B. of Cambridge, or a B.C.L. of Oxford; see page 16). He must also have passed the following Examinations:—

1. The Intermediate Examination in Law.

2. The Final Examination for the Degree of LL.B.

## 2. The Intermediate Examination in Law.

Candidates may present themselves at this Examination if they have kept one term by examination in the Junior Sophister year.

The subjects of examination and the marks assigned to each

subject shall be as follows:-

1. Jurisprudence-100 marks.

[Holland, Elements of Jurisprudence.

Markby, Elements of Law.

Maine, Ancient Law (edited Pollock).]

2. International Law-100 marks.

[Lawrence, Principles of International Law.

Hall, International Law.

Pitt Cobbett, Leading Cases in International Law.]

Roman Law-150 marks.

["The Institutes" of Justinian, edited by J. B. Moyle.]

4. Constitutional Law and History-150 marks.

[Dicey, Introduction to the Study of the Law of the Constitution (6th or later Edition).

Anson, Law and Custom of the Constitution. Thomas, Leading Cases in Constitutional Law.

## 3. The Final Examination for the Degree of LL.B.

Candidates who have passed the Intermediate Examination in Law may present themselves at this examination, provided that they are in a position to present themselves for the examination for the Degree of B.A., or have already passed the Examination for the Degree of B.A.

The subjects of examination and the marks assigned to each subject shall be as follows:—

- The Law of Property (Real and Personal)—250 marks.
   [Strahan, General View of the Law of Property.
   Williams, Law of Real Property.

   Goodeve, Law of Real Property.
- The Law of Obligations—200 marks.
   [Anson, Principles of the English Law of Contract. Pollock, The Law of Torts.]
- Equity—150 marks.
   [Strahan and Kenrick, Digest of Equity;
   H. A. Smith, Principles of Equity.]
- 4. Criminal Law-75 marks.

  [Kenny, Outlines of Criminal Law.]
- The Law of Evidence—75 marks.
   [Stephen, Digest of the Law of Evidence.]

Candidates who have credit for attendance on the Lectures of the Reader in Dutch-Roman Law, or who have obtained special permission, may substitute for 1. "The Law of Property (Real and Personal)" the following subject:—

(a) Roman-Dutch Law,
 250 marks.
 [Van der Linden, Institutes of the Law of Holland;
 Grotius, Introduction to Dutch Jurisprudence;
 Van der Kessel, Theses Selectae;
 Van Leeuwen, Commentaries on Roman-Dutch Law.]

Such Candidates may, further, substitute for 3. "Equity" the following subject:—

3. (a) Roman and Roman-Dutch Law, Special Course, 150 marks.

Justinian, Digest, Lib. 46, Titles 1, 2. Voet, Ad Pandectas, Lib. 46, Titles 1, 2.

Candidates selected for the Civil Service of India, or engaged in that service, or persons who have credit for attendance on the lectures of the Reader in Indian Law, or who have obtained special permission, may substitute for-1. "The Law of Property (Real and Personal)" the following subject:-

1. (a) Hindu and Muhammadan Law, 250 marks.

[Mayne, Hindu Law and Usage; Sir R. K. Wilson, Digest of Anglo-Muhammadan Law.]

Such Candidates may, further, substitute for—4. "Criminal Law" the following subject:—

4. (a) Indian Criminal Law and Procedure, 75 marks.

[Indian Penal Code; The Code of Criminal Procedure.]

And for-5. "The Law of Evidence" the following subject :-

5. (a) The Indian Evidence Act, 75 marks.

Text-books given in brackets are intended to indicate approximately the general knowledge required of Candidates under each head.

Candidates for either the Intermediate Examination or the Final Examination are required to give fourteen days' notice to the Registrar of the Law School, and to pay to the Senior Proctor at the same time an examination fee of £2 2s. Fees so paid will be allowed, up to the amount of £6 6s., in part payment for the Degree fee of £11 15s.

Graduates of Oxford or Cambridge must pay the fees necessary for the Degree ad eundem which they propose to take previous to presenting themselves at the Examination for the Degree of Ll.B. or LL.D. (See p. 17.)

## II .- Doctor in Laws (LL. D.).

A Doctor in Laws must be a B.A. of three years' standing in either Dublin, Oxford, or Cambridge; and must have taken the LL.B. degree either by examination or ad eundem as an LL.B. of Cambridge, or as a B.C.L. of Oxford (see p. 16). Fee, £11 15s. Furthermore, the examination for the degree of I.L.B. in Dublin, or Cambridge, or that for the B.C.L. in Oxford, must have been passed at least one year previously; though in special cases the Board may relax this rule. The fee for the Degree of I.L.D. is £22.

Candidates may qualify themselves to obtain the Degree in one of three wavs—

(1). By passing an Examination (see below).

(2). By presenting an unpublished Thesis on a subject connected with legal or political studies, of merit sufficient, in the judgment of the Examiners, to entitle the candidate to the Degree. The Examiners have power, if they consider it necessary, to examine the candidate on the subject-matter of his Thesis, as well as on subjects connected therewith.

A candidate who adopts this method is required to notify to the Registrar of the Law School, for the consideration of the Professors, not later than six months before Commencements, the subject on which he proposes to submit a Thesis. He will then be informed whether in the opinion of the Professors the subject proposed is suitable. Three printed or type-written copies of the Thesis must be sent to the Registrar of the Law School at least two months before the day of Commencements, and at the same time the candidate must lodge with the Bursar the sum of £5, to be paid to an Extern Examiner appointed by the Board, who, together with such one of the Law Professors as the Board shall appoint for that purpose, shall report to the Board on the merits of the Thesis. Should the Degree be granted, the sum so paid will be allowed in part payment to the Senior Proctor of the Degree Fee of £22.

(3). By submitting original published work of merit sufficient, in the judgment of the Law Professors, to entitle the candidate to the Degree. The Professors have power, if they consider it necessary, to question the Author personally on his work, as well as on cognate subjects. Such candidates should communicate with the Registrar of the Law School at least three months before the day of Commencements.

The work of candidates for the Degree of LL.D., other than those who take the Degree by examination, must show evidence of independent inquiry, and must either contain some substantial addition to knowledge, or present a fresh interpretation of materials already used.

or probotic a reconstitution of materials are any accura

The Subjects of Examination, and the marks allotted to each, are as follows:—

- 1. Roman Law. -100 marks.
  - (a) Candidates will be examined in the Principles and History of Roman Law.
  - (b) A special paper will be set on a prescribed Title of the Digest. Until further notice, the prescribed Title of the Digest will be: Book XVII., Title 1 (Mandati vel contra). In and after December, 1919, until further notice, the prescribed Title of the Digest will be: Book XIX, Title 2 (Locati Conducti).
- 2. English Law-General Paper.-100 marks.
  - A general paper will be set, intended to test the Candidate's knowledge of the several branches of English Law comprised in the Course for the LL.B. Examination.
- 3. English Law .- 100 marks.
  - (a) The Law of Trusts (omitting the Law of Charitable Trusts).
  - (b) Actionable Misrepresentation and Fraud.

4. Jurisprudence, Theoretical and Historical .- 100 marks.

[Holland, Elements of Jurisprudence. Markby, Elements of Law. Holmes, The Common Law. Maine, Early History of Institutions.]

- International Law (including Private International Law). —100 marks.
  - (a) The Treatment of Commerce in War.
  - (b) The Law of Foreign Corporations.
- 6. Theory of Legislation .- 100 marks.

[Bentham, Theory of Legislation. Sidgwick, Elements of Politics, chaps. iii.-xiii. M'Kechnie, State and Individual, Part 2. Dicey, Law and Public Opinion in England.]

7. Legal History .- 100 marks.

[Digby, History of the Law of Real Property. Holdsworth. History of English Law, vol. i. Pollock and Maitland, History of English Law. Book 1., Book 11., chaps. i., iv., ix. Jenks, History of English Law.]

8. Public Administration .- 100 marks.

[Goodnow, Comparative Administrative Law. P. Ashley, Local and Central Government. Wright and Hobhouse, Local Government and Taxation.]

Nos. (1), (2), and (3) are compulsory: but every Candidate must in addition answer in two of the five remaining subjects.

Candidates must send to the Registrar of the Law School notice of the subjects which they select one month before the examination, and must, at the same time, pay to the Senior Proctor the fee of £4, charged for each entry for the examination. These fees are allowed, up to the amount of £8, in part payment to the Senior Proctor of the Degree Fee of £22.

Text-books given in brackets are intended to indicate approximately the general knowledge required of candidates under each head.

At the Examination for the Degrees of LL.D. and LL.B., and the Intermediate Examination in Law, Candidates who have obtained 50 per cent. of the aggregate marks, and who have satisfied the Examiners in the several subjects of examination, are arranged in two classes. The usual standard for first Class is 65 per cent. for LL.D. and LL.B. Examinations, and 60 per cent. for the Intermediate Examination in Law. In each

class the names are arranged in order of merit. Those of the remaining candidates who have obtained 40 per cent. of the aggregate marks and not less than 30 per cent. in each subject are allowed the examination, and arranged in alphabetical order as unclassed candidates.

Specimens of Papers set at recent examinations in Law may be obtained on application to the Registrar of the Law School.

Students desiring information with regard to the Regulations of King's Inns, or the London Inns, should apply in the former case to the Under Treasurer, King's Inns, Dublin, and in the latter case to the Clerk of the Council of Legal Education, Lincoln's Inn, London.

### DAYS OF EXAMINATION AND COMMENCEMENTS.

Examinations for the Degrees of LL.B. and LL.D. and the Intermediate Examination in Law will commence on Tuesday, December 2, 1919, and Tuesday, June 8, Tuesday, November 30, 1920.

Term Examinations will be held as follows:-

MICHAELMAS TERM,
1919.

Criminal Law, Saturday, November 29.
Feudal and English Law, Wednesday, Nov. 26.
Civil Law, Friday, November 28.
Jurisprudence, Thursday, November 27.

Constitutional Law, Thursday, February 26.
Civil Law, Saturday, February 28.
Feudal and English Law, Friday, February 27.
International Law, Wednesday, February 25.

TRINITY TERM, Civil Law, Thursday, June 3.

Feudal and English Law, Wednesday, June 2. International Law, Friday, June 4.

MICHAELMAS TERM, Feudal and English Law, Wednesday, Nov. 24, Civil Law, Friday, November 26.

Jurisprudence, Thursday, November 25.

Degrees will be conferred on December 20, 1919, and February 17, April 19, June 30, and December 18, 1920.

# SCHOOL OF PHYSIC.

### REGULATIONS OF THE SCHOOL OF PHYSIC.

THE School of Physic in the University of Dublin consists of the following Staff for 1919-20:-

Regius Professor of Physic. - John Mallet Purser, M.D., Sc.D.

Regius Professor of Surgery .- Edward Henry Taylor, M.D.

University Professor of Anatomy and Chirurgery .- Andrew Francis Dixon, M.B., Sc.D.

University Professor of Chemistry .- Sydney Young, Sc. D., F.R.S. University Professor of Botany.—Henry H. Dixon, Sc. D., F.R.S.

Erasmus Smith's Professor of Natural Philosophy .- William E. Thrift, M.A., F.T.C.D.

Professor of Surgery .- Thomas Eagleson Gordon, M.B.

University Anatomist .- Edward Henry Taylor, M.D.

Professor of Zoology and Comparative Anatomy .- H. W. Mackintosh, M.A. King's Professor of Practice of Medicine .- James Craig, M.D.

King's Professor of Materia Medica and Pharmacy. - Walter G. Smith, M.D.

King's Professor of Institutes of Medicine [Physiology] .- Harold Pringle. M.D.

King's Professor of Midwifery .- T. Henry Wilson, F.R.C.P.I.

Lecturer in Medical Jurisprudence and Hygiene. - Henry T. Bewley,

Lecturer in Pathology-Alexander C. O'Sullivan, M.D., S.F.T.C.D. Honorary Professor in Laryngology and Otology.—Sir Robert Henry

Woods, M.B., M.Ch. Honorary Professor of Dermatology .- Wallace Beatty, M.D.

Lecturer in Organic Chemistry .- Professor Emil A. Werner, Sc. D.

Lecturers in Dental Surgery and Pathology .- A. W. W. Baker, M.D., M. Dent. Sc.; [Vacant.]

Lecturer in Dental Mechanics. - Joseph Cockburn, L.D.S.

Lecturer in Orthodontia.—E. Sheldon Friel, M. Dent. Sc. Lecturer in Anæsthetics.—T. Percy C. Kirkpatrick, M.D.

Examiner in Clinical Surgery .- Sir C. Arthur K. Ball, Bart., M.D.

Examiner in Ophthalmic Surgery. - L. Werner, M.B. Examiner in Midwifery .- Henry Jellett, M.D.

Examiners in Medicine .- H. L. M'Kisack, M.D.; T. G. Moorhead, M.D.

Examiner in Vital Statistics .- N. McI. Falkiner, M.D.

Examiner in Sanitary Engineering .- P. C. Cowan, Sc. D.

Examiner in Mental Diseases-J. O'C. Donelan, L.R C.P. & S.I.

Examiner in Pathology. - Professor W. St. Clair Symmers, M.B.

Examiner in Anatomy. - Professor J. K. Jamieson, M.D.

Examiner in Institutes of Medicine .- Professor Thomas H. Milrov.

Examiner in Medical Jurisprudence and Hygiene.-F. E. Rainsford,

Examiner in Dental Surgery and Pathology.—George P. Moore, M.D. Curator of Museum of Zoology and Comparative Anatomy.—Henry W. Mackintosh, M.A.

Curator of Pathological Museum.—Thomas Eagleson Gordon, M.B. Curator of Materia Medica Museum.—Walter G. Smith, M.D.

Lecturer in Applied Anatomy. - Adams Andrew M'Connell, M.B.

Assistant to Professor of Chemistry .- W. C. Ramsden, F.C.S.

Assistant to Professor of Institutes of Medicine.-William R. Fearon, Sc.D.

Assistants to Lecturer in Pathology.—J. T. Wigham, M.D.; Adrian Stokes, M.D., D.S.O.

Demonstrator in Röntgen Photography .- William G. Harvey, M.D.

Assistant to Professor of Botany .- W. R. G. Atkins, M.A., Sc.B, with Demonstrators.

Assistant to Professor of Surgery. - William Pearson, M.D.

Mary Louisa Prentice Montgomery Lecturer for 1919-1920. -

Registrar of the School of Physic.—A. C. O'Sullivan, M.D., S.F.T.C.D.
Assistant Registrar.—George L. Allen, Major R.A.M.C. (R.P.).

## REGISTRAR'S OFFICE.

The Office will be open during the Medical year from 10 A.M. to 1 P.M., and from 2 to 4 P.M. daily, except on Saturdays. The Office is closed during the Christmas and Easter Vacations, and for the Summer Vacation about 12th July.

#### MATRICULATION.

Students cannot be permitted to enter for or attend any of the Courses of Instruction in the School of Physic until they have Matriculated by paying the Matriculation Fee of Five Shillings. It is not necessary for Students to have their names on the College Books, or to attend any of the Academical duties of the University, unconnected with the School of Physic, unless they desire to obtain the Degrees or Licenses in Medicine, Surgery and Midwifery, or a Degree in Dental Science of the University of Dublin.

Students may matriculate at the commencement of either the Winter or the Summer Session. The Winter Session commences on October 1st, 1919, and the Summer Session on April 13th, 1920.

#### WOMEN STUDENTS.

Women Students are admitted to the Degrees and Diplomas in Medicine, Surgery, and Midwifery, on the same conditions as men. A special Anatomical Department, with dissecting room and reading-room, is provided for their accommodation.

## WINTER SESSION, 1919-1920.

The Winter Session commences on the 1st October by the opening of the Dissecting-rooms, and terminates on the 15th March. Lectures commence on the 15th October.

Students in each year, including the final years, are required to enter their names and addresses at the Office of the Registrar of the School of Physic at the beginning of the Winter Session. Students who fuil to observe this rule, and permit their names to go off the books of the Medical School, are required to pay a re-entry fee of five shillings.

### LECTURES AND PRACTICAL INSTRUCTION.

Mechanics.—Lectures for Freshman First Year Medical Students (see page 247).

Physics.—Professor Thrift, at 1 o'clock, on Mondays, Wednesdays, and Fridays.

Chemistry.—Professor Young, at 1 o'clock, on Tuesdays and Thursdays, and at 11 o'clock on Saturdays.

Practical Chemistry.—Professor Young, at 10 o'clock, on Saturdays.

Organic Chemistry (Second Year Students).—Professor Werner, at 11 o'clock, on Mondays and Fridays during October, November, and December.

Chemistry for Diploma in Public Health, see page 260.

Systematic Anatomy.—Professor A. F. Dixon, at 9 o'clock, on Mondays, Wednesdays, and Fridays.

Descriptive Anatomy (1st year).—Professor A. F. Dixon, at 9 o'clock on Tuesdays and Thursdays.

Descriptive Anatomy (2nd year).—Professor A. F. Dixon, at 12 o'clock on Tuesdays, Wednesdays, and Thursdays.

Physiology (Junior Class).—Professor Pringle and Dr. W. R. Fearon, at 11 o'clock on Tuesdays, Wednesdays, and Thursdays.

Physiology (Senior Class).—Professor Pringle, at 12 o'clock, on Mondays and Fridays.

Surgery.—Professor Gordon, at 12 o'clock, on Tuesdays, Thursdays, and Saturdays.

Applied Anatomy.—Professor A. F. Dixon and Mr. A. A. McConnell, at 2 o'clock, on Mondays, Wednesdays, and Fridays.

Practice of Medicine.—Professor Craig, at 1 o'clock, on Tuesdays, Thursdays, and Saturdays.

Midwifery.—Professor Wilson, at 1 o'clock, on Mondays, Wednesdays, and Fridays.

Pathology.—Dr. O'Sullivan, at 2 o'clock on Tuesdays and Thursdays, and at 12 o'clock on Saturdays.

Bacteriology and Pathology for Diploma in Public Health, see page 261.

Practical Physiology (Division I.).—Professor Pringle and Assistants, 2 to 4 o'clock, on Mondays and Fridays.

Practical Physiology (Division II.).—Professor Pringle and Assistants, 2 to 4 o'clock, on Tuesdays and Thursdays.

Dissections.—Six months are required, from October to March inclusive.

Christmas Vacation commences on 22nd December, and terminates on 6th January.

#### DEPARTMENT OF ANATOMY.

During the Winter Session.—Students in their first year attend Lectures in Anatomy at 9 o'clock daily; Students in their second year attend Lectures on Tuesdays, Wednesdays, and Thursdays, at 12 o'clock; and Students in their third year attend Lectures on Mondays, Wednesdays, and Fridays, at 2 o'clock. The Lectures of the third year are en Applied Anatomy, and are undertaken mainly by Mr. A. A. McConnell.

The Dissecting-room is subject to the following Rules, ordered by the Board:—

- I. The Official Hours for Dissections are from 10 A. M. to 5 P.M., during which time assistance and instruction are afforded to Students dissecting.
- II. Students are allowed to dissect before 10 a.m., if they please, and, to facilitate such Dissections, the Gate leading into the College Park shall be opened at 7 o'clock, a.m., except during December and January, when it shall be opened at 8 o'clock. (Demonstrators attend from 10 a.m. to 5 p.m.

- III. The Professor of Anatomy shall attend at the Anatomical School during two hours each day, including the hour of Lecture.
- IV. One or more of the Demonstrators shall attend during Official Hours for Dissections.

During the Summer Session the Dissecting-room will be open from 8 o'clock, A.M., to 5 o'clock, P.M. Demonstrations on Topographical Anatomy will be given twice daily.

A Special Class in Embryology is held for Students who are preparing for Moderatorship.

#### DEPARTMENT OF CHEMISTRY.

The Class attending the Professor's Winter Lectures work in the Chemical Laboratory on each Saturday morning at 10 o'clock

The practical work includes the Preparation of Gases and other Inorganic Substances and Qualitative Analysis.

Students are provided with full sets of Apparatus and Tests.

Students requiring Laboratory Practice in special branches of Chemistry are admitted for either one, three, six, or nine months. For further information application should be made to the Professor of Chemistry.

### DEPARTMENT OF PHYSIOLOGY.

Two Courses of Lectures are required: one in the second, the other in the third, Winter Session.

Practical Physiology.—Students of the second year are required to attend Laboratory Courses of Instruction in Experimental Physiology, and in Physiological Chemistry, consisting of at least twenty lessons of two hours' duration. The combined fee for these Courses is £2 2s. Re-attendance on either section, £1 1s.

Research Work.—To encourage the prosecution of original investigation into Physiological Subjects having a practical bearing on Clinical Medicine, Graduates in Medicine will be given every facility by the Professor, and will be charged no fee beyond what may be required to cover cost of materials.

## SUMMER SESSION, 1920.

The Summer Session commences on the 13th  $\Delta$ pril, and terminates on the 26th June.

### LECTURES AND PRACTICAL INSTRUCTION.

Laboratory Instruction in Chemistry .- Professor Young.

This Course comprises Quantitative Chemical Analysis and the identification of typical organic compounds. Students work in the Laboratory from 9 to 11 o'clock on Wednesdays and Fridays. Each Student is provided with full sets of Apparatus and Tests.

Chemistry for Diploma in Public Health, see page 260.

Laboratory Instruction in Histology.—Professor Pringle.

This Course is given in the Physiological Laboratory, on Mondays, Wednesdays, and Fridays, from 2 to 4 o'clock. A Lecture is also given in the Theatre, on one day in each week, after which Illustrative Preparations are shown. Students have their own places in the Laboratory, each provided with a Microscope, and a full set of Apparatus and Reagents. The Laboratory is open to Members of the Class daily, from 10 to 5 o'clock.

Demonstrations in Operative Surgery.—Professor Gordon.

The Course of Operations will be given during the months of April and May, at 8 o'clock, a.m., on Mondays, Wednesdays, and Fridays, and at 11 o'clock, a.m., on Tuesdays, Thursdays, and Saturdays.

Demonstrations in Obstetric Medicine and Surgery .- Professor

Wilson, at 12 o'clock, on Tuesdays and Fridays.

Pathology.-Dr. O'Sullivan from 2 to 4 o'clock, daily, except

Saturdays.

The Course will be given in the Pathological Laboratory. Students will have places allotted to them, with Microscopes and the necessary Apparatus. The Laboratory will be open to Members of the Class from 10 to 1 o'clock daily.

Pathology and Bacteriology for Diploma in Public Health

see page 261.

Botany.—Professor H. H. Dixon, Lectures and Practical work, 9 to 11 o'clock on Tuesdays, Thursdays, and Saturdays, in the School of Botany. Students are provided with microscopes, reagents, and specimens, but are required to bring their own dissecting instruments.

Zoology Lectures .- Professor Mackintosh, at 1.30 o'clock on

Mondays, Wednesdays, and Fridays.

Practical Zoology.-Professor Mackintosh.

In the Zoological Laboratory. The Class will be divided. One section will work from 2.30 to 4 o'clock on Mondays and Thurs-

days; another will work from 2,30 to 4 o'clock on Tuesdays and Fridays; a third from 2.30 to 4 o'clock on Wednesdays, and from 12 to 1.30 o'clock on Saturdays. Students will be provided with Microscopes, Reagents, and Specimens, but must bring their own Dissecting Instruments.

Materia Medica .- Professor W. G. Smith, at 12 o'clock on

Wednesdays, Thursdays, Fridays, and Saturdays.

Medical Jurisprudence and Hugiene .- Dr. Bewley, at 1 o'clock

on Mondays, Wednesdays, Thursdays, and Fridays.

Dental Anatomy. - Professor A. F. Dixon and Mr. E. S. Friel. Lectures and Practical Work, 9 to 11 o'clock on Tuesdays and Thursdays.

Anatomy. -- An optional Course of Dissections and Demonstrations is given during the Summer Session, for which a fee of

£2 2s. is charged.

Physiology. - A Special Voluntary Course of Advanced Chemical Physiology is given during the Summer Session. Fee, £2 2s.

### PRACTICAL PHARMACY.

A Course of Demonstrations in Practical Pharmacy is given by the Professor of Materia Medica in the Museum of Materia Medica during the Summer Session. Each Student works at a separate compartment, and is provided with the necessary Apparatus and Reagents. The Course is open to Extern Students.

#### RÖNTGEN PHOTOGRAPHY.

A Course of Instruction in the principles and practice of Röntgen Photography is given by Dr. Harvey during the Summer Session.

## DEGREES, LICENSES, AND DIPLOMAS.

The Qualifications in Medicine, Surgery, Midwifery, Dental Science, and Public Health granted by the University are as follow :-

# The Degrees are:

- 1. Bachelor in Medicine (M.B.). 2. Bachelor in Surgery (B.Ch.).
- 3. Bachelor in Obstetric Science
- (B.A.O.).4. Doctor in Medicine (M.D.).
- 5. Master in Surgery (M.Ch.).

# The Licenses and Diplomas are:-

- 1. License in Medicine.
- 2. License in Surgery.
- 3. Diploma in Public Health.a

- 6. Master in Obstetric Science
- (M.A.O). 7. Bachelor in Dental Science
- (B.Dent.Sc.).
- S. Master in Dental Science (M.Dent.Sc.).
- 4. License in Obstetric Science.
- 5. Diploma in Gynæcology and

## REGULATIONS FOR OBTAINING MEDICAL DEGREES.

Before obtaining the Degrees of Bachelor in Medicine, Surgery, and Midwifery candidates must have completed the course for the Arts Degree (B.A.) of the University, and have devoted at least five years to medical study. The Arts and Medical Courses may be taken separately or concurrently. The privileges in Arts granted to Medical Students are stated on pages 270-273.

## Entrance to the Medical School.

In order to join the Medical School and prepare for the Medical Degrees of the University, a student must pass the Entrance Examination to Trinity College and a Special Preliminary Examination in Arts, or some examination recognized as equivalent.

Students who have passed any Term Examination are excused the Special Preliminary Examination in Arts, and may begin their Medical Course in October or April. A similar privilege is granted to students who obtain marks showing sufficient merit at the Examination for Junior Exhibitions,

A Special Entrance Examination to Trinity College and a Special Preliminary Examination in Arts begin on the first week-day in October and also in the middle of March in each year. Students who pass these examinations may begin their Medical or Dental Course in October or April.

The Course for the Special Preliminary Examination in Arts for Medical Students is the same as that for the Junior Freshman Hilary Examination.

In the case of students who take their Medical and Arts Courses concurrently the Arts lectures are delivered during the Summer Session of each of the first four years of the combined Medical and Arts Course. The total Arts fees, including the Degree fee, amount to £84 4s. The Arts Regulations for Medical Students will be found on pages 270-273.

## Medical Course.

Students produce evidence of having passed the Special Preminary Examination in Arts, or its equivalent (see above), enter eir names and addresses at the office of the Medical School, pay

the Matriculation Fee of 5s., and proceed with the following Courses and Examinations:-

### First Year .-

Fin

First Wintera-			
Chemistry Lectures and Laboratory,	£3	3	0
Physics and Mechanics Lectures,	0	0	0
Practical Physics,	0	0	0
Systematic Anatomy Lectures,	3	3	0
Descriptive Anatomy Lectures,	3	3	0
Dissections,	5	5	0

£14 14

## Preliminary Scientific Examination in Experimental Physics.

Botany, Lectures and Practical, Zoology, Lectures and Practical, Practical Chemistry, <sup>b</sup>	£1 2 2		6 0 0
	£5	15	6

In connexion with the course in Physics a course of Lectures in Mechanics, of a Physical rather than of a Mathematical character. is delivered between the 10th of October and the 4th of November. Students should take care to obtain credit for attendance on these Lectures. Failure to do so will prevent their obtaining credit for Lectures in Physics, and entering for the Preliminary Scientific Examination in that subject.

## Completion of Preliminary Scientific Examination in (a) Botany, Zoology, and (b) Chemistry.

All the subjects may be passed at the same time, or they may

be passed in two groups (a) and (b).

Before presenting themselves for Examination, Students must have attended the recognized Courses of Instruction in the subjects of the Examination.

## Second Year .-

Sec

cond Winter-			
Anatomy Lectures,	£3	3	0
Physiology and Organic Chemistry			
Lectures,	3	3	0
Practical Physiology,	2	2	0
Dissections,	5	. 5	0
Hospital Elementary Instruction, c	12	12	0
	_	_	
	£26	5	0

In the Table of Fees here given the reductions specified (p. 270) have already been

Students who join the School in a Summer Session must consult the Professors of

Chemistry before entering for this Course.

• Hospital attendance cannot be commenced until the student has obtained credi: for six months' dissections, and completed the Preliminary Scientific Examination.

Second Summer-

Histology, .. .. .. £5 5 0

## Intermediate Medical Examination, Part I.

The subjects are—(1) Anatomy, and (2) Histology, Physiology (omitting the Physiology of the Sense-Organs, and of the Central Nervous System), and Organic Chemistry.

Before presenting themselves for this Examination, Students must have attended the School Courses of Instruction prescribed for the First and Second years of Medical study, and must have completed the Preliminary Scientific Examination in Botany, Zoology, Chemistry, and Physics.

The Examination will consist of a paper, a practical, and an oral in each subject, except Organic Chemistry, in which there is no oral or practical examination.

## Third Year .-

Third Winter-

Applied Anatomy Lecture	es, a	 £3	3	0	
Physiology Lectures,		 3	3	0	
Surgery,		 2	2	0	
Hospital Practice,		 12	12	0	
		001		_	
		£21	O	- ()	

## Intermediate Medical Examination, Part II.

The subjects are—Applied Anatomy and Applied Physiology (including the Physiology of the Nervous System and of the Sense-Organs).

Before presenting themselves for the Examination, Students must have attended the prescribed Courses of study, and have completed Part I. of the Examination.

The Examination will consist of a paper and an oral in each subject.

### Third Summer-

Materia Medica and The Operative Surgery, <sup>b</sup>	erapeutics	* * *	£3 2	3 12	0	
			£5	15	6	

Students who have credit for two years' dissections in Trinity College will be allowed to dissect in their third or subsequent year on payment of £3 8s, for the Winter Session.

Part I. of the Intermediate Examination,

N.B.—The Courses of the Fourth Year cannot be commenced until Part I. of the Intermediate Examination has been completed.

## Fourth Year .-

For

### Fourth Winter-

W 016 11 616001					
Practice of Medicine,			£3	3	0
Midwifery,		• •	3	3	0
Pathology,			2.	2	0
*Hospital Practice,			12	12	0
			£21	0	0
urth Summer-					
Medical Jurisprudence	and Hv	giene.	£3	3	0
Practical Pathology.	, , , ,	3-0-1-0,	2	2	0

# Final Medical Examination, Part I.

The subjects are—Pathology; Materia Medica and Therapeutics, Medical Jurisprudence and Hygiene.

£5 5 0

Before they are admitted to the Examination, Students must have attended the prescribed Courses of study, passed the Intermediate Medical Examination, Part II, and paid the *Liceat* fee (£5).

Vaccination (Fee, £1 1s.) should be taken out in the fourth year.

## Fifth Year-

Practical Midwifery,	 		£10	10	0
Mental Disease,	 		3	3	0
Ophthalmic Surgery,	 	• •	3	3	0
			-		
			£16	16	0

## Final Medical Examination, Part II.

The subjects are—(a) Medicine, Clinical Medicine, and Mental Disease; (b) Surgery, Clinical Surgery, Surgical Operations, and Ophthalmic Surgery; (c) Midwifery and Gynæcology (clinical, papers, and virá voce).

Students may present themselves for Examination in any of these groups (a), (b), or (c), separately, or together, at any of the Examinations during their Fifth Year; but they must leave at

a'After the Session 1919-1920, the Medical curriculum will include a Course in (a) Pathology (Winter and Summer Sessions), and a Course in (b) Preventive Medicine and Bacteriology (Winter and Summer Sessions). The Fee for each of these Courses will be £5 5s.

least one of these groups until the end of their Fifth Year. Before presenting themselves for any of these groups, Students must have attended all the prescribed Courses of Instruction in the subjects in which they present themselves for Examination, and paid the Liceat fee  $(\pounds 5)$ . Candidates in any group who fail to satisfy the Clinical Examiners are not permitted to proceed with the other parts of the Examination.

# Degrees.

Candidates who have completed the prescribed Courses of study and passed all the Examinations, will be entitled, if Graduates in Arts, to have conferred on them the Degrees of M.B., B.Ch., B.A.O., on payment to the Senior Proctor of the Degree Fees amounting to £17. They will also obtain from the Senior Proctor a Diploma entitling them to be entered on the Register of Medical Practitioners under the Medical Act, 1586.

The degree fees are payable to the Senior Proctor.

### TOTAL EXPENSES OF FOREGOING COURSES.

Tomar			6140	17	0
IV. Degrees (M.B.,		B.A.C	17	0	0
III. Liceat Fees,			 10	0	0
II. Hospitals,	919		 ōō	13	0
I. Lectures,			 £67	4	0

# University Licenses.

Candidates for the Licenses in Medicine, Surgery, and Obstetric Science must have completed two years in Arts, and five years in Medical Studies.

The dates, regulations, and subjects of Examination are the

same as for the Degrees.

The Fee for the Licenses is £11.

Licentiates on completing the Course in Arts, and proceeding to the Degree of B.A., may be admitted to the Degree of Bachelor on paying £6, the difference between the Degree Fees and the Fee for the Licenses.

The Liceut fees are the same as for the Final Examinations for the Degrees,<sup>a</sup>

The Fee for the Licenses is payable to the Senior Proctor.

<sup>&</sup>lt;sup>a</sup> These heest fees are not charged to students who have matriculated in the School of Physic subsequent to May 22nd, 1915.

### PAYMENT OF FEES.

Fees for all Winter Courses are to be paid to the Registrar of the School of Physic.

Fees for Summer Courses in Chemistry, Botany, Zoology, Histology, Jurisprudence, Pathology, and Operative Surgery are to be paid to the Registrar of the School.

Cheques or Orders should be made payable to "the Registrar of the School of Physic," Trinity College, Dublin, and should be drawn for the exact amount due.

The Fee for the Course in Materia Medica is to be paid to the Professor of Materia Medica.

The fee for a Course of Dissections in the Summer Session is to be paid to the Professor of Anatomy.

Seats in the Lecture Theatres are assigned in the order in which Fees are paid.

Students who have not paid their Winter Session Fees before November 1st are charged a tardy fee of 2s. 6d. A similar tardy fee is charged in the case of Students who have not paid their Summer Session Fees before April 25th.

No Fees for Winter Courses can be received after 5th November.

No Fees for Summer Courses can be received after 30th April.

Hospital Fees are to be paid to the various Hospitals.

### REGULATIONS CONCERNING EXAMINATIONS.

All entries for Examinations must be made 14 clear days before the days upon which the various Examinations begin.

A list of the days upon which the various Examinations begin will be found on pages 287 and 288.

The following regulations hold with regard to the number, times, and conduct of Examinations, scale of marking, &c.:-

1. The Preliminary Scientific Examination is held three times in each year.

Equal marks are given to each subject and to each group of subjects.

2. The Intermediate Examination is held three times in each

Equal marks are awarded to Anatomy, and to Physiology. including Histology and Organic Chemistry, in Part I., and to Applied Anatomy and Applied Physiology in Part II., of the Examination.

3. Part I. of the Final Examination is held three times in each year.

Scale of marking is as follows:-

Pathology, . Materia Medica						50
Materia Medica	and	Therap	eutics,			25
Medical Jurispi	uden	ce and	Hygiene	е,		25

4. Part II. of the Final Examination is held three times in each year.

Scale of marking	g 13 :	as 101	nows:		
MEDICINE-			Ĭ	SURGERY-	
Paper,	•	9	25		20 10
Oral, .			15	Operations,	20
Clinical, .			50	Clinical, Ophthalmic Surgery, .	10
Mental Disease,			10	MIDWIFERY & GYNÆCOLOGY-	
					40
					40
					20

- 5. The Clinical Examinations are in each case held before the papers and orals, and candidates who fail to obtain 50 per cent. in the Clinical are not permitted to present themselves for the other parts of the Examination.
- 6. The Examination in Mental Disease takes the form of an oral, and is held at an Asylum: candidates are required to fill up a form of certificate (such as is used for the committal of a lunatic to a public asylum) from their personal examination of a patient.

7. In publishing the results of the Examinations the percentages are announced only in the case of candidates who obtain "high marks"; the names of candidates who have passed are read out, but not their percentages; the names of those who fail are not read out.

This practice is followed at all the Examinations in the Medical

curriculum.

8. The Court of Examiners have the power of compelling candidates whose answering has been very deficient in any subject, to attend a recognized Course of Instruction in that subject before presenting themselves for re-examination.

New Regulations are introduced only after due notice, but when introduced they are binding upon all Students of the

Medical School.

9. Before entering his name for any of the three sections of the Final, Part II, Examination, the Student should obtain from the Office the special form on which attendance upon the various necessary Courses may be certified.

#### RE-EXAMINATION.

Every Student, who having entered for any of the Medical Examinations, fails, for any reason, to obtain credit for it, shall pay a fee of 10s. 6d., for any occasion on which he presents himself again for the same Examination.

# REGULATIONS CONCERNING LECTURES, HOSPITALS, &c.

## ATTENDANCE ON LECTURES.

Students are expected to attend all the Lectures or Demonstrations delivered in each Course for which they enter, whether in the Winter or the Summer Session; but in order to provide for unavoidable absence, such as illness or attendance at Examinations, they are allowed credit for a Course if they have been present at three-fourths of the Lectures or Demonstrations actually delivered. If this proportion involve a fraction, the next highest whole number is reckoned as the minimum. If more than onefourth have been missed, application must be made through the Committee of the School of Physic to the Board of Trinity College, by whom each case is decided on its merits, but the applicant must produce satisfactory reasons for omission of all the Lectures missed, not of the excess above one-fourth only. No Student will be allowed credit for a Course who has not been found diligent in attendance, when not prevented by illness or other cause considered sufficient by the Board.

#### CLASS EXAMINATIONS.

Students will be required to show a reasonable knowledge, as ascertained by Examination during the Session, of the subject of a Course of Lectures before a certificate of satisfactory attendance is sued by the Professor in charge, and the return to the Senior Lecturer is to include a statement that this condition has been fulfilled.

#### HOSPITAL ATTENDANCE.

Three Courses of nine months' attendance on the Clinical Lectures of Sir Patrick Dun's or other Metropolitan Hospital recognized by the Board of Trinity College (see page 283) are required.

During the first three months of the Winter Session in which Students begin their Hospital work, they must attend an Elementary Course of Hospital Instruction for one hour per day.

Students will be required to attend on at least forty-five occasions in this three months' Course in order to obtain credit for it.

Students attending Hospital are required, at the end of each month, to lodge at the Registrar's Office, in the Medical School, a card which has been signed daily during the month by some member of the Hospital Staff. These cards may be obtained at the Office at

the School of Physic.

Before presenting themselves for the Final Examination, Students must lodge at the office notes of six Medical and six Surgical cases taken by them, and countersigned by the Physician or Surgeon in charge of the cases, also notes of six autopsies taken by them and countersigned by the Pathologist of the Hospital.

Hospital attendance cannot be commenced until the Student has obtained credit for six months' dissections, and completed the

Preliminary Scientific Examination.

Attendance at a general Hospital during the months of July, August, and September, cannot be counted unless the Student is

resident at the Hospital.

Students who shall have diligently attended the practice of a recognized London or Edinburgh Hospital for one year, of a recognized County Infirmary, or of a recognized Dominion Hospital for two years previous to the commencement of their Metropolitan Medical Studies, may be allowed, on special application to the Board of Trinity College, to count the period so spent as equivalent to one year spent in a recognized Metropolitan Hospital.

Students who for any reason do not begin their Hospital attendance until their third year cannot present themselves for any part of the Final Examination, Part II., until they have credit for twenty-seven months' clinical general Hospital

attendance.

#### PRACTICAL VACCINATION.

The certificate of instruction must show that the student has attended a six weeks' Course of instruction in Vaccination with six attendances, four being in consecutive weeks; has passed an Examination, and shown practical knowledge in performing Vaccination. The recognised Certificates are issued by the Medical Officers of the Vaccine Department, Upper Sackvillestreet, Dublin, the Workhouse Infirmary, Cork, and the Workhouse Infirmary, Belfast.

#### MENTAL DISEASE.

A Certificate of attendance on a three months' Course of Practical Study of Mental Disease at a recognized Institution (see page 283) is required.

#### MIDWIFERY.

Candidates for the B. A. O. degree shall furnish evidence-

- I. of having, before commencing the study of Practical Midwifery, held the office of Clinical Clerk and Surgical Dresser in a recognised general Hospital, and of having attended a Course of Lectures in Midwifery;
- II. (a) of regular attendance at a recognised Maternity Hospital as a non-resident student for a period of six months, or as a resident student for a period of three months;
  - (b) of having received practical instruction in Midwifery; and
  - (c) of having personally conducted twenty cases of labour under official medical supervision.

#### OPHTHALMIC SURGERY.

A Certificate of regular attendance upon a three months' Course of Ophthalmic Surgery is required. This Certificate must be obtained from a Hospital in which at least twenty-live beds are maintained for patients suffering from diseases of the Eye and Ear, and must state that the Student's work in connexion with the Course has reached a satisfactory standard.

### ANÆSTHETICS.

A Certificate of instruction and practice in the administration of General Anæsthetics is required.

## HIGHER DEGREES.

## Master in Obstetric Science.

## M.A.O.

A Master in Obstetric Science must be a B.A.O. of two years' standing, and must produce satisfactory evidence of having been engaged for two years in the study of Obstetric Science. Before the Grace of the house can be obtained, the Candidate must pass the M.A.O. Examination according to regulations approved by the Board.

The subjects for the Examination are:-

1. Practice of Midwifery.

2. Gynæcology.

- 3. Anatomy of Female Pelvis and Elementary Embryology.
- 4. Clinical Gynæcology.

Notice should be given to the Registrar of the School of Physic one month before the first day of the Examination. The dates are the same as those for the Final Examination, Part II., Midwifery, p. 288.

Fee for the M. A. O. Examination is £5 and for the Degree of Master in Obstetric Science, £10.

# Master in Surgery.

## M.CH.

A Master of Surgery must be a B.Ch. of the University of Dublin, of three years' standing, and must produce satisfactory evidence of having been engaged for not less than two years from the date of Registration in the study or practice of his profession. He must then pass an Examination in the following subjects:—

1. Clinical Surgery.

2. Operative Surgery.

3. Surgical Pathology.

4. Surgery.

5. Surgical Anatomy (on the dead subject).

And one of the following optional subjects, viz.:-

1. Surgery, in one of its recognized branches, viz.:

Ophthalmic and Aural; Gynæcological; Dental.

2. Mental Disease.

3. Medical Jurisprudence and Hygiene.

4. Advanced Anatomy and Physiology. 5. Comparative Anatomy. Notice should be given to the Registrar of the School of Physic one month before the Examination begins, the optional subject selected being named at the same time. The dates are the same as those for the Final Examination, Part II., Surgery, page 288.

Graduates in Surgery of the University of Dublin, of not less than ten years' standing, may be recommended for the Degree of M.Ch., by the vote of the Court of Examiners, on such Examination as they shall determine. Candidates claiming this privilege must give one month's notice to the Registrar of the School. state in full their qualifications, and name the optional subject selected.

Fee for the Degree of Master in Surgery, £11.

## Doctor in Medicine.

M.D.

Doctors in Medicine must have passed the Final Examinations in Medicine, Surgery, and Midwifery, and must be of M.A. standing in the University of Dublin. They must also read a Thesis publicly before the Regius Professor of Physic, or must undergo an Examination before the Regius Professor of Physic, according to Regulations to be approved by the Provost and Senior Fellows.

The Regius Professor attends at 12 o'clock on the day before

Commencements to hear Theses.

Candidates who intend to present themselves are required to send a notification to the Regius Professor not less than fourteen days before the appointed day. Forms of notice may be obtained from the Registrar of the School.

Commencements will be held on December 20, 1919, and

February 17, April 19, June 30, December 18, 1920. Fee for the Degree of Doctor in Medicine, £13.

All Degree fees are payable to the Senior Proctor.

## DIPLOMA IN GYNÆCOLOGY AND OBSTETRICS.

Candidates for the University Diploma in Gynæcology and Obstetries must be Registered Medical Practitioners who, after the date of registration, have taken out the prescribed course of study at Trinity College, and at the Rotunda Hospital, or other Hospital recognised for the purpose by the Board and Council. Six months' residence in Trinity College, and six months' residence at the Rotunda Hospital are required.

Instruction is given during the year's course in :-

Practice of Midwifery, Practice of Gynæcology, Anatomy of the Female Pelvis, Elementary Embryology, Pathology of the Female Organs, and Ante-natal Pathology.

The examination for the Diploma is in the same subjects.

The Fees payable are as follow:-

	£	8.	d.
Rotunda Hospital instruction for six months, including rooms,	21	0	0
Registration and Half-yearly fee, Trinity College, six months,	9	3	0
Special Anatomy and Embryology,			0
Examination Fee,	10 5	0	0
	56	14	0

In addition to these fees, there is the rent of rooms in Trinity College, Dublin, for six months which averages about £6 unfurnished. Certain articles of permanent furniture are supplied by the College at a small additional rent.

The Diploma fee is payable to the Senior Proctor.

## DIPLOMA IN PUBLIC HEALTH.

In the year 1870 a "Diploma in State Medicine" was instituted by a resolution of the Board of Trinity College. In 1898 it was resolved that the title of the "Diploma in State Medicine" be changed to that of "Diploma in Public Health."

The conditions under which the Diploma is awarded are governed by the Regulations and Rules adopted by the General Medical Council.

A copy of these Rules and a list of Institutions recognized for purposes of instruction by Dublin University may be obtained by application to the Registrar of the School of Physic, Trinity College, Dublin.

## EXAMINATION.

The Examination for the Diploma is divided into two parts, which may be taken separately or together.

Part I: the subjects are :-

Chemistry in relation to Public Health-Paper and Practical.

Experimental Physics and Meteorology-Practical.

Bacteriology and Pathology-Paper and Practical.

Before presenting himself for examination the candidate must be a Registered Medical Practitioner, and must produce certificates of having attended a Laboratory Course or Courses in accordance with the Rules of the General Medical Council.

Part II: the subjects are :-

Hygiene and Epidemiology -- Paper.

Sanitary Engineering-Paper.

Public Health and Vital Statistics-Paper.

Practical Sanitary Inspection and Report.

Before presenting himself for examination, the candidate must have passed Part I, and have attended the Courses of Instruction in accordance with the Regulations of the General Medical Council.

Candidates are required to send in their applications and certificates of the required courses of study at least 1! days before the first day of examination.

The Fee for each part of the examination is £5 5s., which must be paid to the Registrar of the School of Physic at least one week before the Examination begins. The fee for re-examination in either part is £2 2s.

The Diploma is granted by the Senior Proetor to candidates who complete Part II of the examination.

Dates of Examinations.—The examinations are held three times in each year.

Part I will begin on October 6, 1919; March 8, June 21, October 11, 1920.

Part II will begin on October 9, 1919; March 11, June 24, October 14, 1920.

## COURSES FOR PART 1.

## LABORATORY COURSES.

Candidates for the Diploma in Public Health can attend the following Laboratory courses, which are given in the Laboratories of the School of Physic.

## CHEMISTRY IN RELATION TO PUBLIC HEALTH.

This course is conducted in the Chemical Laboratory; it is continued through two terms, and comprises lectures, demonstrations and laboratory practice in the chemical analysis and microscopical examination of water, sewage, sewage effluents, air, foods, &c. The class meets three times weekly, and begins in the first week of November and February, and in the second week of April.

The Laboratory is open at other hours, in addition to those at which the class meets, for the use of candidates taking this

course.

The fee for the course is £5 5s.

# SYLLABUS OF COURSE IN CHEMISTRY.

Examination of water. The chemical analysis of water, sewage, and sewage effluents. Examination of air. The estimation of carbon dioxide and detection of other impurities in air. Complete analysis of milk and butter. Detection of adulterants, preservatives, and poisons in milk, butter, flour, tea, coffee, mustard, pepper, vinegar, and other common foodstuffs.

Detection and estimation of pieric acid in beer, and of alum in

bread and flour.

Determination of the acidity of vinegar. Microscopic examination of starches.

Chemical analysis of aerated and alcoholic beverages.

Identification and examination of common disinfectants and antiseptics.

Detection of various common poisons in organic mixtures.

General chemistry of ether, chloroform, chloral, salicylic acid, boric acid, phenol, cresols and formaline. Assay of caffeine in coffee.

## BACTERIOLOGY AND PATHOLOGY.

A course in Bacteriology and Pathology is given in the School of Pathology three times in each year for candidates for the Diploma in Public Health. Instruction includes the subjects contained in the following syllabus:—

Micro-organisms. — Definition, classification, conditions of growth, vitality. Chemical changes produced.

Cultures.—Preparation of culture media, different kinds of cultures, anaerobic methods.

Methods of Isolation.

Staining methods.—Direct stains, special stains (Gram, Ziehl-Neelsen, Neisser). Staining of flagella and spores, making and staining sections.

Pathogenic micro-organisms and allied species—Morphology, staining reactions, appearance in cultures, clinical methods of search. Pathogenic yeasts and moulds.

Protozoa.—Life history, hosts, morphology, and methods of investigation of the commoner pathogenic protozoa.

Methods of quantitative bacterial analysis.

Water, Milk, Air.—The commoner non-pathogenic microorganisms found in each. Identification of pathogenic organisms, quantitative analysis.

Food .- Micro-organisms in putrefaction and meat poisoning.

Sewage. - Quantitative analysis and methods of treatment.

Germicides and Disinfectants-Mode of action, standardisation.

Immunity.—Definition. Theories. Clinical use of the methods of complement fixation, agglutination, opsonic index, preparation of antitoxins, preparation and standardisation of vaccines, use of vaccines.

The class meets three times in each week.

The courses begin in the first week in November, the first week in February, and the second week in April.

The Fee for the Course is £6 6s.

## METEOROLOGY.

Candidates will be examined in the subject-matter of the following Syllabus:—

Use and theory of instruments required in meteorological stations.

How to read the barometer, to correct and reduce readings.

Barometric charts, isobars, cyclones and anticyclones. Weather forecasting.

Measurement of temperatures—air and ground temperatures.

Maximum and minimum thermometers.

Measurement of solar and terrestrial radiation.

Determination of dewpoint and hygrometric state of atmosphere. Wet and dry bulb hygrometer. Croya's hygrometer.

Rain-gauge. Measurement of rainfall, Influence of mountains on rainfall.

Measurement of wind velocity. Anemometers.

Sunshine recorders.

Electrical state of the atmosphere. Lightning conductors. Upper-air Investigation.

A course of instruction on the subject-matter of the above syllabus and the use of meteorological instruments is given in the Physical Laboratory and Normal Climatological Station in Trinity College three times in each year. The class meets twice a week, and begins in the first week of February, the first week of May, and the first week of November.

A Fee of £1 1s. is charged for this instruction.

## COURSES FOR PART II.

For the information of candidates the following particulars are given regarding the subjects included in Part II. of the examination for the Diploma in Public Health:—

## HYGIENE AND EPIDEMIOLOGY.

Sanitation of dwellings, schools, factories, and workshops, and of villages and towns. School hygiene, medical inspection of schools, housing of the working classes, lodging-houses. Control of infectious diseases. Inspection of slaughter-houses and cowsheds. Inspection of meat and other articles of food. Milkshops—Taking of samples for analysis. Hospital administration. General epidemiology, with special reference to the origin, pathology, symptoms, propagation, geographical distribution, and prevention of endemic, epidemic, and other infectious diseases of temperate and tropical climates. Methods applicable to the medical investigation of epidemics. Unwholesome trades and occupations, and the diseases to which they give rise. Nuisances injurious or dangerous to health.

Diet: modifications associated with age, sex, occupation and climate. Sound and unsound food. Diseases produced by unsound food. Diseases transmitted by animals, by water,

and by milk. Taking of samples for analysis. Ætiology, period of incubation, and characteristics of the principal Epidemic Diseases. Prophylaxis. Methods of disinfection. Port sanitary work.

## SANITARY ENGINEERING.

Planning and construction of healthy dwellings, schools, barracks, and hospitals; arrangements and regulations for slaughter-houses, cow-sheds, and dairies.

Heating and ventilation of public and private dwellings.

Collection and disposal of house refuse.

Sewage disposal for towns, villages, and isolated dwellings.

Water supply sources, collection and storage of water. Sources of pollution. Filtration and softening of water.

Candidates are advised to write to the Registrar of the School of Physic regarding books recommended for study.

## VITAL STATISTICS AND PUBLIC HEALTH LAW.

# Principles and Methods of Vital Statistics.

Marriage, Birth, and Death Rates; their relation to age, sex, occupation, and density of population. Population and housing statistics; causes of increase and decrease of population; estimates of population; emigration. Construction of statistical tables; graphic methods of illustration; calculating machines; life tables. Vaccination. Classification of diseases and causes of death. Epidemic diseases; syphilis; tuberculosis; cancer; infant mortality; notification of infectious diseases. Vital Statistics of Colonies and of foreign countries. Routine work of Medical Officer of Health, School Medical Officer, and Sanitary Inspector. Office routine, records, office books, and reports.

# The Acts relating to Public Health.

Candidates will be given an opportunity of showing special knowledge of Sanitary Law as it operates within particular parts of the British Empire, provided that when applying for admission to the examination, they indicate the special law in which they desire to be examined.

The attention of Students is directed to the importance of obtaining a Diploma in Public Health as soon as possible after they obtain their Medical Degrees. An increasing number of Public Bodies require it as well as the usual Qualifications in Medicine, Surgery, and Midwifery,

## REGULATIONS OF THE SCHOOL OF DENTAL SCIENCE.

The School of Dental Science consists of the following staff for 1919-20:-

University Professor of Anatomy and Chirurgery.—Andrew Francis Dixon, M.B., Sc.D.

University Professor of Chemistry.—Sydney Young, Sc.D., F.R.S.

Erasmus Smith's Professor of Natural Philosophy,—William E. Thrift, M.A., F.T.C.D.

King's Professor of Institutes of Medicine (Physiology).— Professor Harold Pringle, M.D.

King's Professor of Practice of Medicine.—James Craig, M.D. Professor of Surgery.—Thomas E. Gordon, M.B.

Lecturer in Pathology.—Alexander O'Sullivan, M.D., S.F.T.C.D.

Lecturers in Dental Surgery and Pathology.—A. W. W. Baker, M.D., M. Dent. Sc.; [Vacant].

Lecturer in Dental Mechanics .- Joseph Cockburn, L.D.S.

Lecturer in Orthodontia .- E. S. Friel, M. Dent. Sc.

Lecturer in Anæsthetics .- T. P. C. Kirkpatrick, M.D.

## WINTER SESSION, 1919-20.

The Winter Session begins on October 1st.

Lectures commence on 15th October.

Mechanics.—Lectures for Freshman First Year Dental Students (see page 247).

Physics.—Professor Thrift, at 1 o'clock, on Mondays, Wednesdays, and Fridays.

Chemistry. - Professor Young, at 1 o'clock, on Tuesdays and Thursdays, and 11 o'clock on Saturdays.

Practical Chemistry.—Professor Young, at 10 o'clock, on Saturdays.

Systematic Anatomy.—Professor A. F. Dixon, at 9 o'clock, on Mondays, Wednesdays, and Fridays.

Physiology (Junior Class).—Professor Pringle, at 11 o'clock, on Tuesdays, Wednesdays, and Thursdays.

Practical Physiology (Junior Class).—Professor Pringle and Assistants, 2 to 4 o'clock, on Mondays and Fridays.

Surgery.—Professor Gordon, at 12 o'clock, on Tuesdays, Thursdays, and Saturdays.

Medicine.—Professor Craig, at 1 o'clock, on Tuesdays, Thursdays, and Saturdays.

Dental Mechanics.—Mr. Cockburn, at 5 o'clock, on Tuesdays and Fridays.

Dental Surgery and Pathology.—Drs. Baker and ————, at 5 o'clock, on Tuesdays and Fridays.

Dissections from October to March, inclusive.

# SUMMER SESSION, 1920.

Lectures commence on 13th April.

Laboratory Instruction in Chemistry .- Professor Young.

Students work in the Laboratory from 9 to 11 o'clock, on Wednesdays and Fridays. Each Student is provided with full sets of Apparatus and Tests.

Laboratory Instruction in Histology.-Professor H. Pringle.

This Course will be given in the Physiological Laboratory on Mondays, Wednesdays, and Fridays, from 2 to 4 o'clock. A Lecture will be given in the Theatre, on one day in each week, after which Illustrative Preparations will be shown. Students will have their own places in the Laboratory, each with a Microscope, and a full set of Apparatus and Reagents. The Laboratory will be open to Members of the Class daily, except during Class hours.

Dental Anatomy and Physiology.—Professor A. F. Dixon and Mr. Friel, 9 to 11 o'clock, on Tuesdays and Thursdays.

Orthodontia.—Mr. Friel, at 5 o'clock, on Mondays and Fridays.

Anæsthetics.—Dr. Kirkpatrick, at 5 o'clock, on Wednesdays.

## COMBINED ARTS AND DENTAL CURRICULUM.

The University of Dublin grants the degrees of Bachelor and Master in Dental Science.

Either of these qualifications entitles the holder to be registered as a

licensed Dental practitioner.

In order to obtain the Degree of Bachelor (B. Dent. Sc.) Candidates must have completed the course for the Arts degree (B.A.) of the University and have spent at least four years in the School of Dentistry. The Degree of Master in Dental Science (M. Dent. Sc.) is awarded after a further examination, and cannot be taken until the end of a fifth year of study.

The Dental and Arts Courses may be taken separately or con-

currently.

It is to be understood (a) that the Arts Courses to be attended by Dental Students are the same as those to be attended by Medical Students; and (b) that, with the exceptions noted, the Professional Courses mentioned below as necessary for Dental Students are the same as those for Medical Students.

The following curriculum has been drawn up for students who desire

to pursue their Arts and Dental studies concurrently:-

The student should-

- 1. Pass the Entrance Examination (Trinity College).
- 2. Pass any Junior Freshman Term Examination, or the Special Preliminary Examination in Arts held in March and October.

Upon the completion of the second of these examinations the student should register as a Dental Studenta at the office of the Registrar of the School of Medicine, and begin his combined Course for the Arts and Dental degrees in October or April.

Note .- The Fees for the courses marked thus \* are included in the Arts Fees.

#### First Winter-

- \*Mechanics (Statics and Dynamics, see page 247).
- \*Physics Lectures (Michaelmas and Hilary Terms).

Chemistry Lectures and Labo Systematic Anatomy Lectures Anatomy, dissections	• •	• •	£3 3	3	0 0
			£11	11	0

## Examination in Experimental Physics.

#### First Summer-

Practical Chemistry, together with Practical Dental			
Metallurgy	£2	2	0
Histology, together with Dental Histology	5	5	0
Dental Anatomy and Physiology (Human & Comparative)	b 2	2	0
	-		_
	40	0	0

\*Mechanics (Statics and Dynamics).

\*English Composition.

## Completion of the Preliminary Scientific Dental Examination.

In June of his first year the Student should complete the Preliminary Scientific Dental Examination in Chemistry and Physics, and also the Examination in Dental Anatomy. Before he is admitted to any of these Examinations he must have attended the courses indicated above to the satisfaction of his Teachers.

b Special Course; two days per week, together with practical work and

demonstrations.

a Students are advised to register both as Dental and Medical Students. A Student who has done this is entitled to count some of the Courses which he takes as a Dental Student as a part of his Medical Course, should he at a later date determine to take the Medical Degrees.

## Second Winter-

01400 77 414007			
	£12	12	0
Dissections	5	- 5	0
Physiology Lectures	.3	3	0
Physiology, Practical		2	0
Surgery, including the elements of Surgical Pathology			
and Surgery in its applications to Dental Surgery			
Lectures	2	2	0
Medicine, including the elements of General Pathology			
and the applications of Medicine to Dental Surgery			
Lectures	3	3	0
			-
	£28	7	0

#### Intermediate Dental Examination.

Students who begin their Dental course in the Summer Session are advised in their first summer to attend Dental Anatomy, Statics and Dynamics, and English Composition.

At the completion of his second Winter Session the Student should pass the Intermediate Dental Examination in Anatomy and Physiology.

Before he is admitted to the Intermediate Dental Examination the Student must have completed the courses of instruction indicated above. to the satisfaction of his Teachers, and must have passed the Preliminary Scientific Dental Examination in Chemistry and Physics, and in Dental Anatomy.

Second Summer-

General Hospital (included in Winter Fee).

Dental Mechanics (Practical).a

\*Logic Lectures and English Composition.

Dental Surgery (Hospital Practice)

During the Summer, Students should prepare for the Arts Part of the Final Freshman Examination, and should pass it in the following October. The subjects are: - Mechanics, Logics, English Composition.

and one language, viz.: Latin, Greek, French, or German.

Having completed the Final Freshman and Intermediate Dental Examinations, the Student should devote his time to work at the Dental Hospital. For two years he should attend each forenoon the surgical practice of this Hospital, and in the afternoons the instruction given in Mechanical Dentistry.

Third Winter-

Dental Mechanics (Practical)a 60 0 0 Lectures in Elementary Dental Mechanics and Dental Metallurgy (from October to Christmas).b Lectures in Dental Surgery and Pathology, including Materia Medica and Therapeutics in their applications to Dental Surgery (for rest of Winter Session)

£75 15

£12 12

or £60 and £45 if paid in two instalments.

a Students who have failed to complete the Intermediate Dental Examination are advised not to begin their instruction in Dental Mechanics until June. Before presenting himself for the Final Examination, the Student must have taken a minimum of 27 months' instruction in Practical Dental Mechanics.

The Dental Hospital fee for Practical Dental Mechanics is £100 in one sum,

#### Third Summer-

Dental Surgery (Hospital Practice) Dental Mechanics (Practical)	}*	(included in Winter Fee)
*Arts Lectures.		

#### Fourth Winter-

	£12 45		
Advanced Dental Mechanics (from October to Christmas) Dental Surgery and Pathology, including Materia Medica and Therapeutics in their application to Dental Surgery and Pathology (for rest of Winter Session).	2	2	0
	650	1.4	-

## Fourth Summer-

Dental Surgery (Hospital Practice) \ Dental Mechanics (Practical)	(included in Winter Fee)	
Orthodontia Demonstrations in the use of Anaesthetics	1 1 0	
*Arts Lectures.	£2 2 0	

## Final Dental Examination.

At the completion of the fourth year the Student should enter for the Final Dental Examination, the subjects for which are—

Dental Mechanics and Metallurgy.

Paper, Practical and Viva voce.

Dental Surgery and Pathology, including Materia Medica and Therapeutics in their application to Dental Surgery.

Paper, Practical and Viva voce.

Orthodontia. Viva voce.

The Principles of Surgery and Medicine in their application to Dental Surgery. Viva voce.

The fee for the Degree Examination is £5.

The degree of Bachelor in Dental Science is conferred on Students who have completed the above Courses and Examinations, passed in the subject of the Arts Lectures attended in the fourth Summer and in English Composition at an ordinary Examination for the B.A. Degree, and paid the Degree fee—£10—to the Senior Proctor.

# Bachelor in Dental Science (B. Dent. Sc.).

The total Fees in order to obtain the degree of Bachelor in Dental Science are:—

Entrance Fee, Arts Fee B.A. Degree,	••	•••	ee for £83 4	0
Lecture, Laboratory, an	d Hospita	I Fees—		
First Winter			£11 11	0
First Summer			9 9	0
Second Winter		* *	., 28 7	0
Second Summer				
Third Winter			75 15	0
Third Summer				
Fourth Winter			59 14	0
Fourth Summer			2 2	. 0
Examination Fee			5 0	0
Fee for Degree	••	• •	10 0	0
			£285 2	0

#### EXAMINATIONS.

For dates of Examinations, and regulations regarding Entries for Examinations, see pages 287-289.

Graduates in Medicine of the University of Dublin who desire to take a degree in Dentistry are admitted to the B. Dent. Sc. Examination on producing certificates as follows:—

- One year's attendance at the surgical practice of a recognized Dental Hospital.
- 2. Two years' practical Dental Mechanics.
- Lectures on Dental Surgery and Pathology, Mechanics, Anatomy, Orthodontia, and Anæsthetics.

# Master in Dental Science (M. Dent. Sc.).

Candidates for the Degree of Master in Dental Science must be Bachelors in Dental Science of at least one year's standing. They will be required to pass an examination in Pathology and Bacteriology, and either to carry out Dental work of an advanced character to the satisfaction of the Examiners, or to present a thesis, to be approved of by them, giving evidence of original research on some subject connected with Dentistry.

The fee for the M. Dent. Sc. Examination is £5, and the fee for the Degree is £10.

## PRIVILEGES ATTACHED TO THE SCHOOL OF PHYSIC

#### PRIVILEGES OF MATRICULATED STUDENTS.

Students in Arts are entitled to attend a Course of Lectures in Surgery, in Botany, and in Zoology at a reduction of one-half, and in Chemistry at a reduction of one-third, of the usual Fees. They are also entitled to a Course of Experimental Physics free.

Sophister Students and Graduates in Arts are entitled to attend a Course of Pathology at a reduction of one-half of the usual Fees,

## ARTS DEGREE.

## REGULATIONS FOR MEDICAL AND DENTAL STUDENTS.

- 1. In order to join the Medical or Dental School, a Student must have either
- (a) passed a Junior Freshman Term Examination, exclusive of Trigonometry,

or

(b) passed either the Special Preliminary Examination held in March or that held in the first days of October. The standard subjects are those of the Hilary Junior Freshman Examination,\*

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(c) obtained at the Examination for Junior Exhibitions marks showing sufficient merit in the subjects of (a) or (b).

Note.—Rising Junior Freshmen desiring to begin their Medical or Dental Curriculum have the privilege of presenting themselves at either the Michaelmas Junior Freshman Examination (exclusive of Trigonometry) or the Supplemental Hilary Examination at the end of Trinity Term, without paying the May fee of the Junior Freshman Year. But they obtain no academic credit for either examination beyond the right of entering the Medical or Dental School.

2. All Medical and Dental Students of undergraduate standing, who claim professional privileges in Arts, must attend at least one course of Arts Lectures in the Trinity Term of each year. The subjects of these lectures are as follows:—

## Junior Freshman Year.

Mechanics (including Elementary Trigonometry) and English Composition.

Senior Freshman Year.

Logic (Formal) and English Composition.

# Junior and Senior Sophister Year.

The two Arts Courses attended in the Trinity Terms of the Sophister Years may be any two, with English Composition, of the following

<sup>\*</sup> At the Preliminary Examination in October Students may present themselves in the subjects of the Junior Freshmen Michaelmas Term Examination, omitting Trigonometry, should they so desire.

subjects:—(1) Astronomy, (2) Languages:—French and German, (3) Psychology, (4) Ethics, (5) Political and Economic Science.

Note 1.—Students whose English Composition is unsatisfactory may be required to attend special lectures in that subject.

Note 2.—Students who enter the Medical or Dental School at the commencement of their Senior Freshman Year, and have obtained credit for only one term as Junior Freshmen, must, in the Trinity Term of the Senior Freshman Year, attend the Lectures in Logic (Formal) and English Composition, and in either the Hilary or the Trinity Term attend the Lectures in Mechanics.

Note 3.—In order to obtain credit for the Arts Term in the Junior Sophister Year, the student must pass an examination at the end of the Term in the subject in which he has attended Lectures.

Note 4.—A student, having passed the Final Freshman Examination, may obtain credit for the Arts Terms of his Sophister Years by attendance at the Sophister Moderatorship Lectures in any subject, provided that he afterwards obtains a Moderatorship in that subject, and has already obtained the B.A. Degree of another University.

- 3. Students who have entered the Medical or Dental School not later than the commencement of their Senior Freshman Year, and have obtained credit for such terms of Arts Lectures as they are required under § 2 to attend in the Freshman Years, will obtain credit for the Final Freshman Examination by passing—
  - (a) The Preliminary Scientific Examination of the Medical School, or the Preliminary Scientific Dental Examination and the Examination in Dental Anatomy.

(b) An Examination in Mechanics, Logics, English Composition, and one of the following languages:—Greek, Latin, French, German.

The Examination in Mechanics may be taken concurrently with the rest of the Arts part of the Final Freshman Examination, or as in  $\S$  4. If taken as in  $\S$  4, this examination must be passed before the Final Freshman Examination.

A student need not have passed (a) in whole or in part before presenting himself for (b), but he must have passed both before the Trinity Lectures of his Junior Sophister year.

- 4. An Examination will be held in the Mechanics of the Fina Freshman Course (including Elementary Trigonometry), at the date of each of the Preliminary Scientific Examinations.
- 5. No student will be allowed to attend the Arts Lectures in the Trinity Term of the Junior Sophister Year until he has obtained credit for the Final Freshman Examination.
- 6. Students who have obtained credit for such attendance at Arts Lectures of the Sophister years as is required of them under § 2, and who have made satisfactory progress with their Medical studies during those years (see § 7), may present themelves for the Arts portion of their Degree Examination.

At this Examination he must pass in English Composition and the subject in which he has attended lectures in his Senior Sophister Year.

- 7. The words 'satisfactory progress' in § 6 are thus interpreted. Before presenting themselves for the Arts Degree—
  - (a) Students who have entered the School not later than the commencement of their Senior Freshman Year must have passed Part II. of the Intermediate Medical Examination, or have passed the Intermediate Dental Examination, and kept one year at the Dental Hospital to the satisfaction of their teachers.
  - (b) Those who have entered the School not later than the commencement of their Junior Sophister Year must have passed Part I. of the Intermediate Medical Examination, or the Intermediate Dental Examination.
  - (c) Those who have entered the School not later than the commencement of their Senior Sophister Year must have passed the Preliminary Scientific Examination, or the Preliminary Scientific Dental Examination, and the Examination in Dental Anatomy.

Note.—These regulations may be relaxed in the case of candidates for Moderatorship.  $\begin{tabular}{c} \end{tabular}$ 

- 8. Students who have satisfied the conditions laid down in § 6 may obtain credit for the Degree Examination, either
  - (a) by passing in the Arts subject in which he has attended lectures in his Senior Sophister Year and in English Composition at an ordinary examination for the B.A. Degree, and passing Part II. of the Intermediate Medical Examination, or the Intermediate Dental Examination.

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- (b) by obtaining a Moderatorship, or by passing the full ordinary examination for the B.A. Degree.
- 9. A student who has failed to obtain credit for attendance at the Arts Lectures given in Trinity Term, whether through sickness, or irregular attendance, or want of diligence, or by failing to pass the Examination mentioned in § 2, note 3, or from any other cause, may supplement the Term as follows:
  - (a) If a Junior Freshman, he may pass the Junior Freshman Michaelmas Term Examination, or the Senior Freshman Hilary or Trinity Term Examination.
  - (b) If a Senior Freshman, he may pass the Supplemental Trinity Senior Freshman Examination in October or in the following January; and may pass the Final Freshman Examination for Medical Students in Hilary or Trinity following.
  - (c) If a Junior Sophister, he may pass the Michaelmas Examination of his class, or the Hilary or Trinity Examination of the Senior Sophister Year, taking English Composition and two subjects.

(d) If a Senior Sophister, he must pass a Senior Sophister Supplemental Examination, taking English Composition and three subjects.

A Student who fails to comply with these Rules loses his class.

Note.—A Junior Freshman who is prevented by sickness, or other sufficient reason, from attending Lectures in Trinity Term, may, by special permission of the Senior Lecturer, take a second course in his Senior Freshman year instead.

10. If at any time a Student is reported by the Medical School Committee to the Senior Lecturer, as having ceased to pursue his studies with diligence, he shall thereupon lose the privileges accorded to Medical or Dental Students, until such time as the Medical School Committee report that he has resumed diligent attendance.

If such unfavourable report be made at the end of the Summer Session, the Student will obtain no academic credit for the Arts Lectures he may have attended during the Trinity Term of that

year.

11. Medical and Dental Students who do not claim professional privileges may keep their course in Arts by passing the usual Term Examinations and Degree Examination in full. Those who have kept part of their course in this way, may, at any time, claim the privilege of completing it under the scheme detailed above.

The following Prizes, obtainable either during, or at the completion of, the preceding Courses of Education, are open to the Students of the School of Physic.

#### MEDICAL AND SURGICAL TRAVELLING PRIZES.

A Prize of £100, founded in 1869, is awarded by the Board, in alternate years, to the best answerer at a special Examination in Medicine or in Surgery, provided that the merit be deemed sufficient. Successful Candidates are required to spend three months in the study of Medicine or Surgery, as the case may be, in Berlin, Paris, or Vienna. Before they can obtain the first instalment of £50, they must satisfy the Senior Lecturer that they possess sufficient knowledge of a Continental Language to derive full benefit from the Prize. The Examination is held in June, and is open to Students who have passed the Final Examination in Medicine or in Surgery, as the case may be, within two years of the Examination.

In order to obtain the second sum of £50, Prizemen must have furnished to the Regius Professor their formal Report on the Hospitals attended by them, within two years from the time of

obtaining the Prize.

The subjects of the Medical Travelling Prize Examination are Clinical Medicine, Practice of Medicine, Therapeutics, Pathology, and Obstetric Medicine.

The subjects of the Surgical Travelling Prize Examination are Clinical Surgery, Operative Surgery, Pathology, Surgical Ana-

tomy, and Ophthalmic Surgery.

In accordance with the above conditions, an Examination in Surgery will be held 7th June, 1920, at which a Surgical Travelling Prize, of the value of £100, will be competed for.

A similar Travelling Prize in Medicine will be competed for

in 1921.

Notice must be given to the Registrar of the School of Physic fourteen days before the first day of Examination.

#### THE SIR JOHN BANKS MEDAL AND PRIZE.

These were founded in 1907 by Sir John T. Banks, K.C.B., M.D., for twenty years (1849-69) King's Professor of the Practice of Medicine, and for eighteen years (1880-98) Regius Professor of Physic. A bronze Medal is awarded to the winner, and a Money Prize, value about £15, to the second best candidate, at the Medical Travelling Prize Examination.

#### THE EDWARD HALLARAN BENNETT MEDAL AND PRIZE.

These were founded in 1907 by past pupils of E. H. Bennett, M.D., for nine years (1864-73) University Anatomist, and for thirty-three years (1873-1906) Professor of Surgery, in "appreciation of his eminent services to the surgical profession, and of his many acts of kindness to them while students." A bronze Medal is awarded to the winner, and a Money Prize to the second best candidate, at the Surgical Travelling Prize Examination.

#### FITZ-PATRICK SCHOLARSHIP.

This Scholarship was founded in November, 1901, by Mrs. Fitz-Patrick, in memory of her husband, Thomas Fitz-Patrick, M.D. (Dubl.). It consists of the interest on £1000. It will be awarded annually to the Student who obtains the highest aggregate marks at Part II. of the Intermediate, and Parts I. and II. of the Final Examinations, provided that the Student has completed the Medical Course in the prescribed period of five years.

#### MEDICAL SCHOLARSHIFS.

Two Medical Scholarships, founded in 1860, are offered annually, tenable for two years, with a Salary of £20 per annum, one being for Anatomy and Physiology, the other for Chemistry, Physics, Botany, and Zoology.

The following Regulations have been adopted:-

(1). No Students can compete for the Scholarship in Anatomy and Physiology after the completion of their third year; nor for that in Chemistry, Physics, Botany, and Zoology, after the completion of their second year.

Students who enter the Medical School in a Summer Session will be allowed to compete for Scholarship in Anatomy and Physiology at the

end of their Fourth Summer Session.

(2). No Student can hold both Scholarships together.

(3). Sixty per cent. of the marks at the Examination for the Scholarship in Chemistry, Physics, Botany, and Zoology, are allowed to the two former, and the remaining forty per cent. to the two latter subjects

The best answerers at the Examination are elected to these Scholarships, provided that they have their names on the College Books, have kept one Annus Medicus in the School of Physic, have obtained credit for the prescribed Arts exercises, and that their answering is of a high order.

Graduates in Arts otherwise qualified may be Candidates for Medical Scholarships without having their names on the College

Books.

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Candidates for the Scholarship in Chemistry, Physics, Botany, and Zoology, are recommended to attend the Demonstrations of the Professors of Botany and Zoology during Michaelmas, Hilary,

and Trinity Terms.

An Examination for Scholarship in Anatomy and Physiology will be held on June 14 and following days, and for Scholarship in Physics, Chemistry, Botany, and Zoology, on June 21 and following days. Notice must be given to the Registrar of the School of Physic fourteen days before each Examination begins.

Candidates for Medical Scholarship will be allowed to substitute attendance on the Lectures and Demonstrations in Zoology and Comparative Anatomy given in Michaelmas, Hilary, and Trinity Terms for attendance on the Lectures in Zoology given during the Summer Session.

## DR. HENRY HUTCHINSON STEWART MEDICAL SCHOLARSHIPS.

Dr. Henry Hutchinson Stewart Scholarships in (a) Anatomy and Institutes of Medicine, and in (b) Chemistry, Physics, Botany, and Zoology, of the value of £10 per annum, tenable for three years, are awarded from time to time.

The Regulations for these Scholarships are:-

Students may be of any standing in Arts.

No Student is allowed to compete a second time for a Scholarship in the same subjects.

A Stewart Scholarship will be awarded to :-

(a) The Candidate who obtains first place at the Intermediate Examination, Part I, in June, provided that, in the opinion of the Examiners,

he obtains High Marks, and

(b) The Candidate who obtains the highest total of marks at the Examination in Physics in March, and the Examinations in Botany and Zoology, and Chemistry, in June, provided that, in the opinion of the Examiners, he obtains High Marks.

No Student may compete for (b) who has been more than two Summer and one Winter Session in the School, or for (a) who has been more than three Summer and two Winter Sessions in the School. Equal marks will be awarded to Anatomy and Physiology in (a), and to each of the four subjects, Botany, Zoology, Chemistry, and Physics in (b).

# DR. HENRY HUTCHINSON STEWART SCHOLARSHIPS IN MENTAL DISEASE.

These Scholarships are awarded from time to time. They are of value about £50 per annum, and are tenable for three years. The Regulations are as follows:—

An Examination will be held for a Scholarship on June 21st, 1920.

Candidates must have passed the M.B. Examination not more than seven months previously.

The successful candidate must spend not less than six months as resident or outdoor pupil in a recognized Institution for the treatment of Mental Diseases approved by the Board of Trinity College, and under such conditions as they shall from time to time prescribe; this period to be commenced within six months from the date of election.

The Scholarship will not be awarded unless sufficient merit be shown.

No person will be admitted to compete a second time for the Scholarship.

The subjects for the Examination are Mental Diseases and the methods of examining Nervous Tissues.

Candidates are recommended to read:-

Psychological Medicine by Maurice Craig.

#### JOHN MALLET PURSER MEDAL.

The past pupils of John Mallet Purser, M.D., King's Professor of the Institutes of Medicine in the School of Physic, Trinity College, wishing to permanently record their appreciation of him as a teacher, their respect for him as a scientist, and their regard for him as a friend, at the completion of the twenty-fifth year of his Professorship, subscribed a sum of money for the purpose of founding a medal in the School of Physic to be called the "John Mallet Purser Medal." The dies, which cost £73 10s., and the sum of £42 were handed over to the Board to present annually a bronze medal in Physiology and Histology at the Intermediate Medical Examination, Part I. The Board accepted the gift, and agreed to the following conditions:—

- 1. That the Medal be called "The John Mallet Purser Medal."
- 2. That the Medal be awarded annually to the Student who, at the ordinary June Intermediate Medical Examination, Part I., shall obtain the highest marks in Physiology and Histology, provided that, at the same time, the Student is successful in passing the Intermediate Medical Examination, Part I.
- That no students may compete for the Medal, who, at the time
  of the Examination, shall have spent more than three years
  since entering for their first classes in the Medical School.

The Medal is presented to the successful Candidate at the opening meeting of the University Biological Association, which is usually held in November.

### DANIEL JOHN CUNNINGHAM MEMORIAL MEDAL AND PRIZE.

On November 3rd, 1909, a Meeting of former pupils and friends of the late Professor Daniel John Cunningham resolved to establish a Memorial of his work in connexion with the Medical School of Trinity College, Dublin. It was decided to place a Bronze Portrait Panel in the Department of Practical Anatomy, and to establish a Medal and Prize in Anatomy to be awarded each year at Part I of the Intermediate Examination which is held in June.

The entire work connected with the designs for the Medal and Portrait Panel was entrusted to Mr. Oliver Sheppard, R.H.A. The Panel has been placed in a suitable position in the Dissecting Room of Trinity College, and the first award of the Medal was

made in June. 1910.

As a result of communications with the Cunningham Memorial Committee of the University of Edinburgh, it was decided that the Memorials in Dublin and Edinburgh Universities should be on the same lines, and it was arranged that the Bronze Portrait Panels for the Dissecting Rooms of the two Universities should be identical, and that the obverse of the Medals established in Dublin and Edinburgh should also be identical.

The Medal and Prize are awarded to the Student who obtains highest marks in Anatomy at Part I of the Intermediate Examination, held in June, provided that at the same time he is successful in completing his Examination.

No Student is eligible who, at the time of the Examination, has been longer than three years in the School of Medicine.

#### BEGLEY STUDENTSHIPS.

In Trinity Term, 1905, bequests from William Chapman Begley, B.A., M.B. of £5200,  $2\frac{1}{2}$  per Cent. Consols, and from his wife, Jane Begley, of £1004 14s. 6d., for the purpose of endowing four Medical Studentships, were received by the Board.

The Studentships are open to all Undergraduates who have passed the Final Senior Freshman Examination, and who have entered or intend immediately to enter the Medical School. Where the qualification and merits of the Candidates for the Studentships are, in the opinion of the Board, otherwise equal, preference is given according to the seniority of their standing in Arts at the time of their entering the School. Every Student during his tenure shall pursue his studies in the School to the satisfaction of the Board; if he fails to do so, or is guilty of any serious misconduct or breach of College discipline, he shall cease to be entitled to the Studentship, unless for special reasons the Board shall determine otherwise.

One Studentship, value about £37 per annum, tenable for four years, or until the holder becomes medically qualified, is awarded annually about the last Saturday in November. Candidates must

apply through their Tutors to the Board, and submit a list of their distinctions in Arts, and also of their distinctions in Medicine, if they have been for some time students in the School.

### PROFESSORS' PRIZES.

The Professor of Practice of Medicine gives Prizes in the Winter Course amounting to  $\pounds 5$ .

The Professor of Materia Medica gives Prizes in the Summer Course amounting to £5.

The Lecturer on Medical Jurisprudence gives Prizes in the Summer Course amounting to  $\pounds 5$ .

All the Professorial awards are open to Extern as well as College Students.

Sessional Examinations in Anatomy are held at which Honor Certificates are awarded to those candidates who show sufficient merit.

#### MUSEUMS.

The Museums of Zoology and Comparative Anatomy, of Pathology, of Materia Medica, and of Botany, are open to the Students of the School of Physic for the purpose of Education.

I .- MUSEUM OF ZOOLOGY AND COMPARATIVE ANATOMY.

Curator—Henry W. Mackintosh, M.A., Professor of Zoology and Comparative Anatomy.

The present building was completed in 1876, and contains the Zoological Collection formerly kept in the Regent House; and the Comparative Anatomy Collection, formerly combined with that of

Pathology, and kept in the Medical School.

The Zoological Museum was founded in 1777, and contains a large series of typical specimens. The Mammals, Birds. and Reptiles are arranged on the ground-floor. The Amphibians and Fishes are in the gallery. The Invertebrates are arranged in the table cases, with the exception of the Insects, which are in cabinets in the Curator's room. The centre of the hall is occupied by the skeletons of large Mammals and Birds The Galleries contain the Anatomical collection, and a set of Microscopes, under which are arranged specimens, specially intended for the Students attending the Lectures in Zoology during the Summer Session.

There is a Zoological Laboratory in connexion with the Zoological Department, to which Students are admitted during Term on payment of a Fee of 5s. for the Junior, and 6s. 8d. for the Senior Division per Term. The Laboratory is provided with Microscopes and Appliances, and Students are supplied

with specimens.

The Museum is open to Students daily from 11 A.M. to 4 P.M.

II .- MUSEUM OF SURGICAL AND MEDICAL PATHOLOGY.

Director-Thomas E. Gordon, M.B., Professor of Surgery.

This Museum is intended for the use of the Students in Medicine, and to illustrate the Professors' Lectures. It is open daily to Students from 11 A.M. to 4 P.M.

#### III. - MUSEUM OF MATERIA MEDICA.

Curator—Walter G. Smith, M.D., King's Professor of Materia Medica and Pharmacy.

A Course of Demonstrations on Practical Pharmacy will be given in the Museum of Materia Medica. Each Student will be provided with apparatus and tests.

The Museum is open to Students from 11 A.M. to 4 P.M.

### IV .-- ANTHROPOMETRIC MUSEUM AND LABORATORY.

The Museum forms a portion of the Department of Anatomy, and is in the charge of the Professor of Anatomy. Visitors are admitted on application.

#### V .- HERBARIUM.

Keeper of the Herbarium .- HENRY H. DIXON, Sc.D., F.R.S.

The Herbarium is open for reference during Term, from 11 till 3; and at other times on special application to the Keeper.

#### It contains-

- 1. A Herbarium, containing the Plants indigenous to Great Britain and Ireland.
- 2. A General Herbarium, open to receive the Plants of all countries. This latter is particularly rich in the Plants of North America (including Mexico and California), British India, South Africa, and Australia; and less so in those of South America, North Asia, and parts of Europe.

Donations of specimens from all countries are solicited from

Students of the University.

The Board allows an annual sum for the support of the Herbarium.

## BOTANIC GARDENS.

## Director-H. H. DIXON, Sc.D., F.R.S.

The Gardens are situated about one mile from the College, near Ball's Bridge, and now contain about eight acres of ground.

Since their inception in 1806, the Gardens have been added

to in 1832 and in 1848.

The inner or original Garden contains a well-arranged collection of the principal Natural Orders of hardy plants for teaching purposes, and there are also heated plant-houses in which choice and tender exotics are grown.

A small pond is utilised for the growth of aquatic and marsh plants, and there are borders of rock-edging of considerable extent, on which herbaceous, Alpine, and bulbous plants are grown.

Classes for Students in Arts and Medicine are held in the Gardens as occasion arises. Strangers to Dublin are admitted by orders from the Provost, or from any of the Fellows, or Professors,

For the conditions under which keys giving admission to the Gardens are granted to residents in Dublin, application should be made to the Director.

MARY LOUISA PRENTICE MONTGOMERY LECTURERSHIP IN OPHTHALMOLOGY.

[Founded in 1915 by the late Robert John Montgomery, M.A., M.B. (Dubl.), F.R.C.S.I.]

The conditions and terms of appointment are determined by the following Resolutions, which have been approved by the Board of Trinity College, and by the President, Vice-President, and Council of the Royal College of Surgeons in Ireland:—

- I. The Lecturer shall be appointed for one year, and shall be eligible for re-appointment year by year for a period not to exceed five years.
- II. The appointment shall be made for the first five years by the Board of Trinity College, Dublin, after they have considered a report from the Staff of the School of Physic on the merits of the candidates. For the next five years the appointment shall rest with the President, Vice-President, and Council of the Royal College of Surgeons in Ireland, after consideration of a report drawn up by the Staff of the School of Surgery on the merits of the candidates.
- III. The Lecturer shall give one or more formal lectures in each year to the members of the Medical Profession and Medical Students in Dublin, upon a subject connected with Ophthalmology to which he has devoted his attention during the previous year.
- IV. Candidates for election, and those seeking re-election, are expected to state in what centre, and in what branch of the subject, they propose to study during a portion of the year.
- V. The Board of Trinity College, Dublin, and the Council of the Royal College of Surgeons in Ireland, reserve the power of modifying, from time to time, the regulations governing both the appointment and tenure of the Lecturership.

## SIR PATRICK DUN'S HOSPITAL.

Consulting Physicians .- John Mallet Purser, Sc.D., M.D., Regius Professor of Physic. John Magee Finny, M.D.

Physicians .- Walter George Smith, M.D., King's Professor of Materia Medica and Pharmacv.

James Craig, M.D., King's Professor of Practice of Medicine.

Henry C. Drury, M.D.

T. Henry Wilson, F.R C.P.I., King's Professor of Midwiferv.

Surgeons .- Edward H. Taylor, M.D., Regius Professor of Surgery.

Sir Arthur Ball, Bart., M.D.

Pathologist .- Alexander C. O'Sullivan, M.D., University Lecturer in Pathology.

Surgeon to Department for Throat, Nose, and Ear.—Sir Robt. H. Woods.
M.Ch., Honorary Professor of Laryngology and Otology.

Assistant Physician .- Edward J. Watson, M.D. X-Ray Department. - Edward J. Watson, M.D.

Anæsthetist .- W. C. P. Smyly, M.D.

House Surgeon .- Cecil F. Brady, M.B.

Dentist .- J. I. Kelly, M. Dent. Sc.

## SCHOOLS AND HOSPITALS RECOGNIZED BY THE BOARD OF TRINITY COLLEGE.

The following Dublin Hospitals, in addition to Sir P. Dun's Hospital, are recognized by the Board of Trinity College:-

# General Hospitals.

Adelaide Hospital. Royal City of Dublin Hospital. Dr. Steevens' Hospital. Jervis-street Infirmary. Mater Misericordiæ Hospital. St. Vincent's Hospital.

Mercer's Hospital. Meath Hospital. Richmond, Whitworth, and Hardwicke Hospitals.

Ophthalmic Hospital. Royal Victoria Eve and Ear Hospital.

Midwifery Hospitais.

Rotunda. Coombe.

National Maternity.

Hospitals for Study of Mental Disease.

Richmond Lunatic Asylum. | Swift's.

Courses of instruction taken at the Medical Schools of the following Institutions are recognized by the Board of Trinity College as qualifying for admission to the examinations in the School of Physic, provided that no student be permitted to take any of the Degrees in Medicine, Surgery, or Midwifery, unless he has attended at least three of the necessary five years in the School of Physic, Trinity College:—

The Royal College of Surgeons in Ireland.

The Queen's University, Belfast. The University College of South Wales and Monmouthshire.

The University of Adelaide. The University of Bombay.

The University of Calcutta.

The University of Lahore.

The M'Gill University, Montreal. The University of Madras.

The University of Melbourne.

The University of Otago.
The University of Sydney.
The University of Toronto.

For the terms of admission of Students from the University of Cape Town and the University of South Africa, see pages 82-84.

For the Exhibition awarded to Graduates in Medicine of Melbourne University, see page 85.

# RECOGNITION BY THE UNIVERSITY OF TEACHING INSTITUTIONS WITHIN THE BRITISH DOMINIONS.

Recognition of Courses, in the case of Students of Medicine, taken at Universities and Colleges of the British Dominions.

The Board and Council are prepared, in the case of students of medicine, to consider applications from Dominion Universities and Colleges for recognition of courses of instruction given by them if the following regulations are complied with:—

- 1. The application for recognition shall be made to the Registrar of the College, and shall supply information under the following headings:—
  - (a) The names of the subjects for the teaching of which recognition is sought.
  - (b) The names of the teachers in each subject whose courses are to be recognized, a note of their university degrees, or other qualifications, and a statement of their published work. Particulars regarding the opportunities which each teacher has had of qualifying himself for the work which he undertakes, and of the length of time during which he has devoted himself to the teaching of his subject, should be included.
  - (c) The names and qualifications of any assistants employed in conducting the courses for which recognition is sought, and a note of the amount of teaching entrusted to each.
  - (d) A note of the average number of students attending the courses under consideration.
  - (e) A note of the number of lecture hours devoted to each course, of the number of written or vivá voce examinations held during the progress of the course, and a clear statement of the hours necessarily spent in practical class-work by the students of each subject.
  - (f) A detailed syllabus of each course, and a time-table showing the hours at which the various classes meet, and the duration of the courses. The fees charged for the courses of instruction should also be noted.
  - (g) A short description of the accommodation which each teacher has at his disposal, and a note of the apparatus, illustrative museum specimens, diagrams, and other appliances which he has for use in his teaching-work.
- 2. Every recognized Institution shall at the end of each year furnish to the Registrar of the Medical School of Trinity College a statement showing:—
  - (a) The number of students who have attended each of the recognized courses in a satisfactory manner.

- (b) A clear statement of any changes which it is proposed to introduce regarding the conduct of the courses for next session.
- (c) A note of any changes made during the year, or proposed to be made, in the personnel of the teaching staff responsible for the recognized courses.
- 3. A certificate of attendance on a recognized course can only be accepted if it clearly states that the student has satisfactorily performed the work of the class. The certificate must also show the number of attendances made by the student, and the total number of possible attendances. In each certificate, attendance upon practical class-work, lectures, and class-examinations should be distinguished.
- 4. The University shall, if it thinks fit, defer recognition until an inspection has been made of the accommodation, apparatus, and teaching-appliances of the Institution making application.
- A recognition once granted may be withdrawn, or suspended, at any time, should the University deem such action desirable.
- 6. No recognition of courses granted under this scheme will exempt a student wishing to take the degree of the University of Dublin from spending at least three full years of Medical study in Trinity College.

Applications from individual students for recognition of courses taken by them in Colonial Universities or Colleges shall, as hitherto, be decided on by the Board of Trinity College after consultation with the Medical School Committee, and the Tutors' Committee.

## DATES OF EXAMINATIONS.

# Schools of Physic and Dental Science.

#### IMPORTANT.

NOTICE of intention to enter for any Examination must be given to the Registrar of the School of Physic, on the printed forms provided, not less than fourteen clear days before the Examination begins. No application for permission to enter for any Examination after the prescribed period will be considered by the Medical School Committee unless accompanied by a Tardy Entry Fee of 2s. 6d.

Certificates, when required, and *Liceat* or Re-examination fees, when due, are to be presented or paid when entering for an Examination: if this be not done, entries will not be received.

The following Table gives the dates at which the Examinations begin:—

Special Entrance and Preliminary Examination in Arts for Matriculation to Medical School—Wednesday, October 1, 1919; Monday, March 22, Friday, October 1, 1920.

Preliminary Scientific Medical and Preliminary Scientific Dental-Wednesday, October 1, 1919; Monday, March 8, Monday, June 21, Friday, October 1, 1920.

Preliminary Scientific (Physics and Chemistry only)—Monday, March 15, 1920.

Intermediate Medical Examination-

Part 1.—Wednesday, Oct. 1, 1919; Monday, March 8, Monday, June 14, Friday, October 1, 1920.

Part II.--Wednesday, Oct. 1, 1919; Monday, March 15, Monday, June 21, Friday, October 1, 1920.

Intermediate Dental Examination-

Wednesday, October 1, 1919; Monday, March 8, Monday, June 14, Friday, October 1, 1920.

Final Medical Examination-

Part I.—Monday, October 6, 1919; Monday, March 15, Monday, June 21, Monday, October 11, 1920. Part II. — Medicine, Monday, December 8, 1919; Monday, March 8, Monday, June 14, Monday, December 6, 1920.

Surgery, Monday, December 1, 1919; Monday, March 15, Monday, June 7, Monday, November 29, 1920.

Midwifery, Monday, December 1, 1919; Monday, March 15, Monday, June 7, Monday, November 29, 1920.

Theses for M.D. Degree--

Friday, December 19, 1919; Monday, February 16, Saturday, April 17, Tuesday, June 29, Friday, December, 17, 1920.

Examination for B. Deat Sc. Degree and M. Dent. Sc. Degree-

Monday, December 1, 1919; Monday, March 15, Monday, June 7, Monday, November 29, 1920.

Examination for M. A. O. Degree-

Monday, December 1, 1919; Monday, March 15, Monday, June 7, Monday, November 29, 1920.

Examination for M.Ch. Degree-

Monday, December 1, 1919: Monday, March 15, Monday, June 7, Monday, November 29, 1920.

Examination for Diploma in Public Health-

Part I.—Monday, October 6, 1919; Monday, March 8, Monday, June 21, Monday, October 11, 1920.

Part II.—Thursday, October 9, 1919; Thursday, March 11, Thursday, June 24, Thursday, October 14, 1920.

#### EXAMINATION FOR PRIZES.

Begley Studentship - See p. 278.

Medical Scholarship-

Chemistry, Physics, Botany, and Zoology, Monday, June 21, 1920. Anatomy and Physiology, Monday, June 14, 1920.

The John Mallet Purser Medal -

Awarded for Physiology and Histology at the Intermediate Medical, Part I., in June.

The Daniel John Cunningham Medal-

Awarded for Anatomy at the Intermediate Medical, Part I., in June.

Fitzpatrick Scholarship-

Awarded annually to the Student who obtains the highest aggregate marks at Part II. of the Intermediate, and Parts I. and II. of the Final Medical Examinations.

Surgical Travelling Prize, and Edward Hallaran Bennett Medal and Prize—Monday, June 21, 1920.

# CERTIFICATES REQUIRED.

Before entering for any section of the Final, Part II, Examination Candidates must obtain from the office the forms upon which the prescribed attendances must be certified.

Liceat	Fees-Final,	Part I,	1			£5.
Liceat	Feea-Final,	Part II,				£5.
Re-exa	mination Fee				10s.	6d,

<sup>\*</sup> See note at foot of page 250.

### SCHOOL OF ENGINEERING.

#### TEACHING STAFF.

### I. - Mathematics.

R. A. P. ROGERS, M.A., Fellow and Tutor of Trinity College, Dublin, and Donegal Lecturer in Mathematics in the University of Dublin.

# II .- Mechanics.

FRASER, M.A., Fellow and Tutor of Trinity College, Dublin, and Assistant to the Professor of Natural Philosophy in the University of Dublin.

# III.—Experimental Physics.

W. E. THRIPT, M.A., HON. M. INST. C.E.I., M.I.E.E.; Fellow of Trinity College, Dublin, and Erasmus Smith Professor of Natural and Experimental Philosophy in the University of Dublin.

HARRY THRIFT, M.A., F.T.C.D. Assistants to the Erasmus Smith Professor of Natural and Experimental Philosophy.

### IV .- Chemistry.

SYDNEY Young, sc.D., F.R.S., Professor of Chemistry in the University of Dublin.

E. WERNER, SC.D., F.I.C., F.C.S.L., Professor of Applied Chemistry. W. C. RAMSDEN, F.C.S.L., Assistant to the Professor of Chemistry.

# V .- Geology, Petrology, Mineralogy, and Mining.

John Joly, Ma., B.A.I., Sc.D., F.R.S., Professor of Geology and Mineralogy in the University of Dublin.

# VI.—Engineering.

T. ALEXANDER, M.A.I. (hon. causá), M.I.C.E.I., Professor of Civil gineering in the University of Dublin.

W. E. LILLY, M.A.I., SC.D., M.I.C.E.I., Assistants to the Professor of J. T. Jackson, M.A.I., M.A.,

# VII.—Electrical Engineering.

WM. TATLOW, B.A.I., A.M.I.E.B., Lecturer in the Practice of Electrical Engineering.

# Lecturer in Electric Traction.

George Marshall Harris, Electrical Engineer to the Dublin United Tramways Company.

# VIII. - Mechanical Engineering.

W. E. LILLY, M.A.I., SC.D., WH. EX., M.I.MECH.E., Lecturer in Mechanical Engineering.

# Introductory.

THE School of Engineering in the University of Dublin was established in the year 1842 for the purpose of affording to such Students as intend becoming Civil Engineers systematic instruction in those branches of knowledge which are most useful to the Engineer in the practice of his profession.

While keeping this object in view, it has been deemed advisable to require the Student, during his Course in the School, to be a member of Trinity College, and subject to its regular discipline. giving him at the same time the opportunity of obtaining the advantages of a general University Education.

# Membership of Trinity College.

In order to become a member of the College, it is necessary to pass the Entrance Examination, and pay the Entrance Fee of £15.

The Course for this Examination is given in the Calendar, p. 30, or in the Shorter Programme, p. 2. The dates at which it is held are given in the Calendar, pp. 1\* to 5\*, or in the Shorter Programme, p. 2.

# Admission to the School of Engineering,

Having become a member of the College, the Student is eligible for admission to the School of Engineering, which is obtained by his passing a further Examination (in the subjects enumerated below), held annually at the end of Trinity and also at the beginning of Michaelmas Term. Students can join the classes only at the beginning of Michaelmas Term. Students intending to enter must be at the Engineering School at 10 o'clock on the day fixed in the Almanac.

Subjects for Entrance Examination to Engineering School,

Arithmetic. Algebra (to the end of Quadratic Equations). Geometry (Euclid, first six Books). Trigonometry (to the end of Solution of Plane Triangles). Elementary Mechanics.

Upon passing this Examination the Candidate is admitted to the School, and begins his studies in it.

# Duration and Subjects of Professional Course.

The Professional Course continues for three or four years, as explained below, from the time of entering the School, during which instruction is given partly by Lectures, and partly in Laboratories and in the Field, being arranged thus:—

# FIRST YEAR (JUNIOR CLASS).

Mathematics.
Mechanics.
Experimental Physics.
Chemistry.
Elementary Geology and Mineralogy.
Drawing and Practical Geometry.

# SECOND YEAR (MIDDLE CLASS).

Practical Mechanics.
Theory of the Steam Engine.
Chemistry—Analyses of Ores, Minerals, &c.
Elementary Geology.
Drawing, Designing, and Office Work.
Levelling, Surveying, and General Engineering.
Electrical Engineering.

# THIRD YEAR (SENIOR CLASS).

Mineralogy, Petrology, Field Geology, and Mining. Drawing, Designing, and Office Work. Levelling, Surveying, and General Engineering. Electrical Engineering and Mechanical Engineering.

# FOURTH YEAR (OPTIONAL).

Electrical and Mechanical Engineering.

An optional fourth year's Course has been instituted, and Students wishing to make a special study of Electrical Engineering are recommended to do so in this fourth year.

Students taking the ordinary three years' Course are allowed to specialise during part of the third year, and to present themselves accordingly in special Papers at the Final B.A.I. Examination: those who may wish to devote themselves to the ordinary Civil Engineering work being only required to study a certain part of the Electrical Engineering work, and to take at the B.A I.

Examination a certain part of the Electrical Engineering Examination in addition to the full Civil Engineering Examination; and those who may wish to devote themselves to Electrical Engineering being allowed to substitute the Electrical Engineering Lectures and Demonstrations of the Lecturer in the Practice of Electrical Engineering, for certain parts of the Civil Engineering work, as arranged by the Professor of Civil Engineering, and to be allowed to substitute the Electrical Engineering Examination for two of the Papers set by the Professor of Civil Engineering at the B.A.I. Examination: the Drawing of Students thus specialising will be arranged so as to be suited to their Electrical Engineering work as far as possible.

#### Examinations.

At the end of the Trinity Term, in each year, the Junior and Middle Classes are examined as to their proficiency in the subjects they have been lectured in previously; and no Student can rise from a lower to a higher Class except he shall have first obtained credit for the necessary attendance at the Lectures delivered to his Class, and at Laboratory and Field Work and in the Drawing School, during each of the three Terms of the Academic Year then closing, and also have passed the Examination at the end of the Trinity Term above mentioned or a Supplemental Examination at the beginning of the following Michaelmas Term.

A Student who has failed to pass one of these Examinations may, on payment of half the Fee for the corresponding year, attend over again the Lectures in the subjects in which he was deficient.

A part of the regular Final (or Degree) Examination of the Senior Class is held at the end of Trinity Term, and the remainder in Michaelmas Term. There is also a Supplemental Examination at the beginning of the next Trinity Term.

Students are required to give notice to the Registrar of the School of their intention to present themselves at any of these Examinations at least a week before the commencement of the Examination, and at the same time to send in their Drawings, &c., to the Professor of Engineering or his Assistant.

# Attendances at Lectures, &c.

In order to obtain credit for attendance at Lectures, a Student must have attended at least three-fourths of the Lectures delivered to his Class by each Lecturer during each of the three Terms in the Academic Year. To obtain credit for Office Work, &c., the following attendance in the Drawing School is necessary:—

Middle Class, at least 14 hours each week during Term. Senior Class, ,, 16 ,, ,,

That is, the work done by each Student in the Drawing School from week to week must be equivalent to these numbers of hours work in the judgment of the Professor of Engineering.

To obtain credit for *Field Work*, the Student must attend during the entire time on at least three out of every four occasions when the Professor of Engineering or his Assistant takes the Class

out for practical instruction in the Field.

And he must further make out and plot as many Surveys and Sections as the Professor of Engineering may consider it desirable to require of him, in order to ensure his proficiency in these branches.

The time thus occupied will be credited to the Student as if spent

in the Drawing School.

The hours spent at Arts Lectures or Laboratory Work count as half that number of hours' attendance in the Drawing School. Notice must, however, be given to the Assistant to the Professor of Engineering during the first week of such attendance.

Eighteen hours' attendance is sufficient for the fortnight within which a Student has to pass an Arts Examination, and a similar notice to that mentioned in the preceding paragraph must be given

in order to obtain this remission.

# Certificate in Engineering.

Upon concluding the Senior Year of his Course, and obtaining credit for the required attendance at Lectures, and at Field and Office Work, the Student, after passing the final Examination, will be entitled to receive the Certificate in Engineering granted by the Professors of the Engineering School.

# License in Engineering.

A Student who has not only completed his Course in the Engineering School, but has also completed the first two years of the Course in Arts, and passed the Final Freshman Examination ("Littlego"), will be entitled to receive the License in Engineering granted by the University.

# Degree of Bachelor in Engineering.

A Student who has not only completed his Course in the Engineering School, but also graduated in Arts, will be entitled to proceed to the Degree of Bachelor in Engineering.

# Degree of Master in Engineering.

A Bachelor in Engineering, who has been actually engaged upon Engineering Works for a period of three years, is entitled to proceed to the Degree of Master in Engineering.

# Diploma in Electrical Engineering.

A Course in Electrical and Mechanical Engineering is provided for those Students who may study the subject in the Optional fourth year, and a Diploma in Electrical Engineering is awarded to Students taking out this Course satisfactorily.

# Honors in the Engineering School.

Honors are awarded at the Degree Examination by giving Special Certificates for superior merit in each of the following subjects:—

1. Practical Engineering.

2. Mechanical and Experimental Physics.

3. Mining, Chemistry, Geology, and Mineralogy.

4. Electrical Engineering.

In the first and fourth, Honors are awarded on the results of the corresponding parts of the Degree Examination; in the second, on the combined results of Examinations in the subjects at the close of the Junior and Middle Years; and in the third, on the combined results of Examinations in Chemistry at the close of the Junior and Middle Years; in Elementary Geology at the end of the Middle Year; and in Mineralogy, Petrology, Geology, and Mining at the Degree Examination.

No private Certificate can be issued by any Professor or Lec-

turer connected with the School.

# Scale of Fees and Charges.

#### COLLEGE FEES.

Half-yearly Fee for keeping name on College Books, payable to the Junior Bursar before the first Saturday in May and the first Saturday in November, . . 8 8 6

#### ENGINEERING SCHOOL FEES.

In addition to the foregoing College Fees for Entrance to College and keeping name on Books, the Student will have to make the following annual payments:—

In	the	Junior	Class,				٠	£10	0	0
91	,	Middle	12					£15	0	0
		Senior	11					£15	0	0
		Ontions	al fourth	venr.8		,		£15	0	0

<sup>\*</sup>If the Student paying this Fee be a graduate, he is not required to continue paying the ordinary College half-yearly Fees.

These latter annual payments in the Engineering School should be made to the Junior Bursar before Nov. 20 in each year. After that date a fine of 5s. per week commenced is inflicted, and after two weeks the names of all Students whose Fees are then unpaid are removed from the books of the Engineering School.

Students in Engineering requiring to use the Drawing School only, may do so on payment of £5 for the half-year in which they use it.

The Fee for the License in Engineering or for the Degree of Bachelor in Engineering is £1.

The Fee for the Degree of Master in Engineering is £10.

A Fee of 10s. is payable on taking out the Testimonium of the Degree of Master in Engineering.

All the Fees are payable to the Junior Bursar, except those for Licenses and Degrees in Engineering, which are payable to the Senior Proctor.

A Student in the Engineering School may, should he so desire, pursue his Course in Arts at the same time, without having to pay any further

Fees than those already specified.

Students who have passed the B.A. Degree Examination need not pay the half-yearly College Fee in May of their Senior Year, as their names are kept on the College books till the end of June. Such Students must pay a liceat ad examinandum fee of one guinea and the ordinary replacement fee of 15s. before entering for their final Engineering Examination.

### Laboratories and Museums, &c.

Attached to the School there are large Laboratories, Museums, and a Model Room, containing numerous valuable models of Engineering Works and Machinery, which are of great assistance to the Students in pursuing their studies.

# Syllabus of the Course.

The instruction given to the Students by the different Professors and Lecturers connected with the School is arranged as follows, subject to such modifications and alterations as the circumstances require:—

# I .- MATHEMATICS.

The Lecturer in Mathematics delivers about 90 Lectures to the Students, during the first year of their Course, upon the following subjects:—

1. Plane Trigonometry, and the nature and use of Logarithms.

2. Differential Calculus.

3. Integral Calculus and Mensuration, &c.

# II.—MECHANICS, &c.

The Lectures and Demonstrations upon Mechanics and Mechanism, Hydrostatics, &c., extend over the first two years, and reach the number of about 120, the subjects treated of being—

In the Junior Year-

Theoretical Mechanics.

Demonstrations with practical instruction in Elementary Mechanics.

#### In the Middle Year-

Applied Mechanics, including Kinematics of Machines.

Demonstrations with practical instruction in Experimental Mechanics and Mechanism.

#### III .- EXPERIMENTAL PHYSICS.

The Erasmus Smith Professor of Experimental Physics and his assistants deliver about 52 Lectures to the Junior Class, 30 to the Middle Class, and 20 to the Senior Class, on the subjects enumerated below:—

To the Junior Class. Heat. Electricity and Magnetism. Sound and Light.

To the Middle Class.

The Theory of the Steam Engine. Electrical Engineering.

The Steam Engine Lectures are delivered to the Middle Class in Michaelmas Term, the practical work thereon is carried out in Hilary Term, and the Preliminary Theoretical Lectures in Electrical Engineering by the Professor of Experimental Physics are delivered in Trinity Term.

To the Senior Class.

# Electrical Engineering.

The Professor of Experimental Physics concludes his Course of Lectures in Electrical Engineering in the Michaelmas Term of the Senior year, and all Students are required to attend this Course. The Lecturer in the Practice of Electrical Engineering gives such of his Demonstrations as he considers necessary for all Students in Michaelmas Term; the Special Electrical Engineering Lectures and Demonstrations are given in Hilary and Trinity Terms.

Six Lectures and Demonstrations on the Dublin United Electrical Transvays system are given by the Lecturer in Electric Traction.

In addition to these Lectures, the Students are given Courses of Laboratory Instruction in Physical Measurements, and in studying the electrical installation.

The Students can, at any period of their Course, take out special Courses of practical instruction in Physical Measurements.

#### IV .- CHEMISTRY.

The Professor of Chemistry's Lectures and Demonstrations are the following:-

Junior Class.

LECTURES.—On three days in each week during Michaelmas and Hilary Terms. As part of the Course, the Students conduct Experiments in one of the Laboratories, which relate, as far as possible, to the processes and materials concerned in the Arts of Construction.

#### Middle Class.

LABORATORY PRACTICE .- During four hours in each week, from November to March, inclusive. The Course of Instruction comprises the Qualitative and Quantitative Analysis of Metallic Ores and Minerals, Assays of Metals, Testing Cements, estimation of Carbon in Iron and Steel, Analysis of Water, of Fuels, and of Furnace Gases, &c. In addition (during Hilary Term), Lectures are given on Metallurgical Processes, open to members of both Classes.

# V .- MINERALOGY, PETROLOGY, GEOLOGY, AND MINING.

The Junior Class attend in Trinity Term a Course of Lectures introductory to the Sciences of Mineralogy and Geology in so far as these concern the Engineer. In these the Student is instructed in the nature and properties of the more important minerals and rock-forming substances. The Examination, which is held in June, is entirely practical. the Student being expected to identify and pronounce on the nature of such minerals and rocks as have been submitted to him in the Course of the Lectures.

The Middle Class attend in Michaelmas Term a Course of Lectures in General Geology. This Course (which is also open to Arts Students and to the Public) is prefaced by a School Course of about six Lectures recapitulating and extending the work done in the Junior Year.

The Course on General Geology extends over about twenty Lectures, and embraces Physiography and Physical Geology.

At the Examination held in May a Prize of £5 is awarded for the best answering. The Examination is conducted in part on paper and is in part practical-Minerals and Rock-specimens being submitted for identification.

#### The Senior Class-

In Michaelmas Term attend a Course of Lectures on the Mineralogy and Physical properties of the more important Rocks and Building Stones.

In Hilary Term a School Course of about eleven Lectures and Demonstrations on Building Stones, followed by a Course in Stratigraphical Geology and Palæontology (open to Arts Students and to the Public) extending over about eighteen Lectures.

In Trinity Term a Course of Lectures on Applied Geology, Ores, and

Mining.

At intervals, during the year, the Class accompanies the Professor to places of Geological interest in the neighbourhood of Dublin, for practi-

cal instruction in the Field.

Candidates for the final Examination are required to prepare an original Geological Section, which must be sent in to the Professor of Geology at least a week before the final Examination. At this Examination a Prize of £10 is awarded on the marks obtained.

The Prizes in Geology and Mineralogy, awarded to second and third

year's men, were founded by the Board in December, 1887.

#### VI .- ENGINEERING.

During his first year in the School, the Student is instructed in Drawing by the Assistant to the Professor of Engineering, who delivers to the Class three Courses of Lectures, accompanied by Demonstrations (one Course each Term), making about 120 Lectures altogether on the following subjects :-

- 1. Use of Drawing Instruments, Scales, &c.
- 2. Practical Examples in Plane Geometry.
- in Conic Sections. 4. Descriptive Geometry.

5. Shadows, &c.

6. Isometric Projection.

In the second and third years, Levelling and Surveying are taught practically in the Field by the Professor of Engineering and his Assistant; and the Student, when sufficiently expert, is required to perform these operations himself repeatedly and to plot his work on paper.

Regular attendance is also required in the Drawing School, where the object kept prominently in view is to make the Student an intelligent and efficient Draughtsman and familiar with the taking out of Quantities, the calculation of Strains on Bridges, Roofs, and other structures, and Office Work generally.

During the second and third years demonstrations with practical instruction are given on testing cements, a testing machine and other

apparatus being provided for this purpose.

A Steam Engine and a Gas Engine are available for instruction. The new equipment of the Electrical and Mechanical Engineering Laboratory includes a Locomotive Boiler and a Compound Condensing Steam Engine of 30 H. P., equipped with feed heater, ejector, condenser, measuring tanks, and other apparatus for taking indicator diagrams and for the carrying out of efficiency tests, coal and water consumption, &c., and an 8 H. P. Gas Engine of the latest type.

In addition to this, during the two years, about 230 Lectures are deli-

vered by the Professor of Engineering as follows:-

# TO THE MIDDLE CLASS.

# On four days of each week of each Term.

Surveying. - Embracing Levelling and Surveying of all descriptions, with the nature, use, and adjustment of the instruments. Plotting plans . and sections, and taking out quantities from plans. Construction of Earthwork tables. Simpson's Rules and Amsler's Integrator, and their application to areas, volumes, and the locating of centres of gravity.

Road and Railway Construction .- Route and preliminary survey, ruling gradients, equalizing earthworks, profile and side slopes. Formation and maintenance of plank and paved roads, of the Macadam and Telford road and tramway. Setting out railway curves. Execution and drainage of earthworks and rock cuttings. Formation of the permanent way, points and crossings, over and under bridges, culverts. The specification, and estimate, and standing orders of stations. Parliament.

Descriptive Engineering .- The technical arrangement of plans and sections of Engineering Works, manner of finishing and marking dimensions, illustrated by the description in detail, of some work, e.g. a bridge. Foundations, piling, concrete, brick and metal cylinders and cofferdams. Tunnelling. Building construction, the preparation, preservation, and testing of the materials used in Masonry, Carpentry, and Metal trades.

Text Books .- Rankine's Civil Engineering; Mill's Railway Con-

struction; Seddon's Builders' Work; Aitken's Road Construction.

Books of Reference.—Aitken's Road Making; Simms on Tunnelling; Middleton and Chadwick's Surveying; Jackson's Surveying; Johnston's Surveying (American).

#### TO THE SENIOR AND MIDDLE CLASSES.

### On one day of each week of Hilary and Trinity Terms.

A consecutive Course of descriptive Lectures on some of the subjects comprised under Hydraulic Engineering. Portions of standard works will be prescribed as reading.

On alternate years the subjects may be-Water Works and River

Engineering, or Šanilary Engineering, Drainage, and Harbours.

Books of Reference.—Humber's Water Works; Farr's Paper on Moving Loads, Proc. Inst. C.E., 1900; Stevenson's Canals and Rivers: Stevenson's Harbours. Also Harcourt's Works. Turner and Brightmore's Treatise on Waterworks. Moore's Sanitary Engineering. Burton on Waterworks.

#### TO THE SENIOR CLASS.

# On four days of each week of each Term.

Engineering Science and some applications, e.g.—

Earthworks.-Rankine's method of the ellipse of stress with Alexander's Kinematic Model, showing its application to the design of embankments, foundations, retaining walls, sea walls, sewers, tunnel roofs, inverts and side walls.

Strength, Elasticity, and Resilience of Materials .- Application of Graphic and Analytic Methods, bending-moment and shearing-force diagrams for fixed and moving load systems, illustrated by the Alexander and Thomson Moment Delineator. The distribution of the internal direct and shearing stress for lineal, transverse, and compound states of strain. Lines of stress in beams, illustrated by a polariscope method. Scientific and commercial testing.

Frame Work Structures .- Their stability, strength, stiffness, and durability. Graphic Statics. Details, numerical calculation of the ties, struts, beams, stiffeners, stays, and fasteners. Fidler's systematic application of the Rankine-Gordon formula to the design of long Lévy's analyses of triangular trussing with three variables for the form, number of bays, and ratio of depth to span, Fink, Bollman, and other systems. Plate girders and distribution of rivets.

Block Work Structures .- The rectangular buttress, piers, chimneys. The equilibrium of the masonry arch. Theoretical equilibrium curves for different loads. The design of the Elliptic Arch by Rankine's approximations from the linear 'Hydrostatic,' 'Geostatic,' and 'Stereostatic' arches. Tables of the properties of the 'Two-nosed Catenary,' and their application to the immediate and direct numerical design of masonry arches in brick, sandstone, or granite, for dead and live loads.

Iron Arched Girders, Suspension Bridge, and Compound Structures.—Rankine's 'Sloping Beam,' its application to the approximate design of arched ribs of uniform stiffness. Simpler parts of Rankine's analysis and Lévy's detailed graphical constructions for completely determining the direct thrusts and bending moments on arched ribs of any section, either hinged at crown or abutments or otherwise fixed and subjected to complete or partial loading. Fidler's treatment of great cantilever bridges.

Text-Books.—Rankine's Civil Engineering; Alexander and Thomson's Elementary Applied Mechanics, and Graphic Statics, and Exercises on Graphic Statics.

One or more copies of the following books lie in the office for daily reference, or duplicates may be borrowed from the Lending Library:—

Molesworth Pocket Book; Rankine's Applied Mechanics; Stoney on Strains, 1886; Fidler's Practical Bridge Construction, 1887; Du Bois, Strains on Framed Structures (American), 1883; Walmisley on Iron Roofs; Unwin's Testing of Materials of Construction, 1888; Lévy's Statique Graphique, 1888. Tables and Numerical Examples from Alexander and Thomson's Paper on 'Two-nosed Catenaries' in the Transactions of the R.I.A., 1888. Matheson's Aid Book, 1889. Clark's Steam Engine, 1889. Trans. I. C. E. Longmans' Engineering Series, now being published. Marsh's Reinforced Concrete. Lilly's Design of Plate Girders.

#### ENGINEERING SCHEME.

In Trinity Term the Students of the Senior Class in groups of four or five prepare the office and field work of an Engineering Scheme for a short line of Railway, Tramway, Road, or Canal or other work approved of by the Professor of Engineering. The details of this scheme are carried out during the long vacation by the Students themselves. This scheme forms an integral part of the work for Degrees in Engineering.

#### VII .- ELECTRICAL AND MECHANICAL ENGINEERING.

The Lectures of the Professor of Experimental Physics are on the general theory of Electricity as applied to Electrical Engineering.

The Lectures of the Lecturer in the Practice of Electrical Engineering are on the following subjects:—

Generation of electric currents—Continuous current dynamos and motors—Transmission of power—Alternating current generators for single-phase and for polyphase currents.

Synchronous motors, induction motors.

Alternating current transformers—Motor-generators, rotary converters, boosters.

Storage batteries-Switchboards, regulating apparatus, and safety devices.

Distributing systems for the supply of light and power-Measurement of power-Meters.

Wires, cables, and transmission lines-Insulators and insulating

The wiring of buildings for electric light and power-Testing-The

use of ordinary electric measuring instruments, testing of magnetic properties of iron, location of faults in dynamos and cables, measurement of efficiency of dynamos and transformers.

Arc and incandescent lamps.

Telephones and signalling apparatus.

General arrangement of plant for electric lighting, and for power transmission-Operation of railways and tramways by electricity-Production of chemicals by electricity.

The Lectures will be supplemented by Practical work in the Labo-

ratory, and Demonstrations on the above.

A Laboratory and workshop has been constructed, which contains a gas engine of 8 H. P. for driving the dynamos, a storage battery, rotary converter, continuous current dynamo, a potentiometer, oscillograph, and outfit of modern electrical measuring instruments.

A supply of three-phase alternating current is available.

#### LABORATORY OF MECHANICAL ENGINEERING.

The Mechanical Engineering Laboratory is under the superintendence of the Lecturer in Mechanical Engineering. equipment includes a 10-ton Wicksteed Testing-machine, Locomotive Boiler and Compound Condensing Engine of 30 H. P., а 8 н. р. Crossley Gas Engine, and a 4 н. р. Tangye Oil Engine. The Mechanical Workshop is fitted with Lathes, Shaping and Drilling-machines, and other Machine-tools for the preparation of specimens for testing and other mechanical work. A part of the Laboratory is fitted up for the testing of Cements: its equipment includes a tensile Testing-machine and other apparatus used in the preparation of samples for testing.

In the Michaelmas and Hilary Terms second year Students attend a Course of Demonstrations, with practical work in the

Laboratory, on the following subjects:-

The construction and working of steam, gas, and oil engines.

Indicated and brake horse-power.

The carrying out of tests, coal and water consumption, and other measurements necessary for determining the efficiency of the steam engine.

In the Hilary and Trinity Terms third year Students attend a Course of Demonstrations, with practical work in the Laboratory, in the following subjects:-

The preparation of specimens for testing.

Tests on materials for tension, shear, torsion, bending, and compression.

Tests on columns, and the method of plotting the experimental results.

Lathe and other machine tools.

The apparatus required for the testing of cements, and the tests used in determining the value of a cement.

#### MUSEUM OF NATURAL PHILOSOPHY.

Curator—William Edward Thrift, M.A., Professor of Experimental Philosophy.

This Museum was founded about the year 1730, when Dr. Richard Helsham was Professor of Natural Philosophy. It contains a collection of various Philosophical Instruments, chiefly in connexion with the sciences of Optics and Practical Mechanics, Theory of Heat, Electricity, and Magnetism. Steps have lately been taken by the Board of Trinity College to place this Museum in a condition more suited to the purposes of modern scientific research, as well as more adapted to illustrate the Lectures given in Natural and Experimental Philosophy. The Instruments are now kept in the new Physical Laboratory, the gift of Viscount Iveagh to the College, along with the instruments purchased out of the funds supplied by him for its equipment.

#### MUSEUM OF GEOLOGY AND MINERALOGY.

Curator—John Joly, Sc.D., F.R.S., Professor of Geology and Mineralogy.

This Museum is intended principally for the use of Students in Engineering. It contains typical collections of Minerals and Fossils, arranged for the use of Students, and also some rare specimens of Fossil Reptiles and Deer.

#### MUSEUM OF ENGINEERING MODELS.

Curator -- Thomas Alexander, M.A.I., Professor of Engineering.

This Museum was founded in 1846. It contains a variety of Engineering Models, amongst which will be found a series of models illustrating the progress of invention in the Steam Engine; a model of a Locomotive Engine (scale one-fourth); a model of a Cornish Pumping Engine (scale one-twelfth); a large collection of timber bridges; a model of the lifting apparatus of the Conway Tube; a model of the Boyne Viaduct, and other lattice structures. It contains likewise a complete collection of the weights and measures of the Metric System.

ST. JOHN'S AMBULANCE CERTIFICATE FOR PROPICIENCY IN FIRST AIDS TO THE INJURED.

Engineering Students may, optionally, take out a short course of lectures in the elementary principles of Physiology and Anatomy, followed by demonstrations in First Aids to the Injured. The Instruction, which will begin in Michaelmas Term, will be such as to qualify the Student to present himself at the examination for the St. John's Ambulance Certificate. The examination may be arranged for any convenient date, and for any number of candidates up to thirty. The cost of the examination, which is £4, is jointly borne by the candidates. There are no fees required for the lectures and demonstrations.

Particulars as regards the hours and dates upon which the lectures and demonstrations are given will be posted in the Hall of the

Engineering School.

#### LENDING LIBRARY.

In the Trinity College Lending Library there are copies of new and

important books on Engineering.

It is open for the lending and return of books on three days of each week during Term, from 1.30 to 2.30 o'clock. A Catalogue can be obtained for one shilling on application to the Clerk in charge. The Lending Library is situated in the Engineering School Building.

#### FURTHER INFORMATION.

Communications from persons desirous of further information should be addressed to the Registrar, Engineering School, Trinity College, Dublin.

DUBLIN UNIVERSITY ENGINEERING STUDENTS' SOCIETY.

The object of this Society is to afford an opportunity for the discussion of subjects of interest to Engineers.

Meetings are held fortnightly in the Engineering School. The Professor of Engineering is President of the Society.

The Hon. Secretary will be happy to supply any further information regarding the Society.

# DAYS OF EXAMINATION.

MICHAELMAS TERM, 1919.

Examination for Degree of B.A.I., Begins Friday, Oct. 10. S\_pplemental Examinations of Middle Begin Friday, Oct. 10. and Junior Classes,

Supplemental Entrance,

Classes,

Wednesday, October 15.

TRINITY TERM, 1920.

Begins Thursday, April 22, and Tuesday, June 15 Examination for Degree of B.A.I., (in part).

> Begin Thursday, April 22, and Monday, June 21.

Entrance Examination, Saturday, June 26.

MICHAELMAS TERM, 1920.

Examination for Degree of B.A.I., Supplemental Examinations of Middle Begin Monday, Oct. 11. and Junior Classes,

Examinations of Middle and Junior)

Supplemental Entrance Examination,

Begins Monday, Oct. 11.

Wednesday, October 13.

# Indian und Fome Civil Service School.

# University Lectures in Oriental Languages for Selected Candidates for the Civil Service of India.

On the 13th October, 1877, a communication was received by the Provost and Senior Fellows from the Secretary of State for India, stating that Trinity College had been placed on the list of the Institutions in which Selected Candidates for the Civil Service of India will be permitted to reside during their year of "Probation."

Arrangements have been made enabling selected Candidates for the Civil Service of India to complete their studies in Oriental Languages with the aid of Special Lectures given by Professors of

the University.

Candidates will be required to elect at the beginning of the

Term the Languages in which they wish to be prepared.

Three Lectures in each Language will be given weekly during each of the three Terms of the year, except in Sanskrit and Arabic, in each of which five Lectures weekly will be provided.

Sophisters having credit for full attendance on two of these special courses of Lectures can claim professional privileges; see

under "Professional Privileges."

Students who desire to reside in Trinity College, Dublin, during their year of probation, after passing the Open Competition for the Indian Civil Service, will be allowed to put their names on the College Books without Entrance Fee; the College and University Fees during their residence will therefore be £8 8s. half-yearly. Candidates will further have to pay a fee of £2 2s. per Term for the Lectures in the History of India. They will be allowed Residence and Commons on the same terms as other Students, and will not be required to pass Terms in Arts while pursuing their special studies.

The total cost of a year's residence should not exceed £120.

The Lecturers appointed by the Board of Trinity College are as follows:-

Arabic, Persian, and Hindustani, . . Prof. L. White King,

Tamil, Telugu, Burmese, Hindi, Bengali, and

Marāthī, . . . . . . . . . Prof. John van Someren Pope, M.A.

History of India, . . . . . Prof. L. White King, LL.D.

Indian Law, . . . . . [Vacant].

The Board offer annual Prizes of £10 in Sanskrit, £10 in Arabic, £5 in Hindustani, and £5 in Persian.

It may be added that the Law Courts, Police Courts, &c., in Dublin, afford ample opportunities for Candidates to observe the

practice of the Law in its various branches.

Candidates intending to reside in Trinity College are requested to communicate with E. H. Alton, M.A., F.T.C.D., 40, Trinity College, Dublin, who will give any further information which may be required.

# Classes for the Indian, Colonial, and Home Civil Service (Class I.).

1. These Classes are open to all Candidates for the Examination for the Indian, Colonial, and Home Civil Service (Class 1.), whether those Candidates belong to Trinity College or not.

2 The Course of Study will be divided, during the current Academic year, 1919-1920, into two Sessions (a Winter Session from October 27th to March 20th, and a Summer Session, from April 19th to June 26th); in each of which Sessions not less than two hours of teaching per week will be given in each Class except during the Christmas Vacation (December 20th to January 17th). This teaching will comprise not only specific instructions directed entirely to the requirements of the Examination, but also guidance to the several Candidates as to the course of private reading which will best suit the needs of each.

3. The Open Examination, at present in abeyance, will be held again in 1921. It is proposed to offer during the Academic year, 1919-1920, instruction in most subjects for that Examination.

For further particulars regarding Lectures apply to E. H. Alton, M.A., F.T.C.D., 40, Trinity College.

- 4. At the end of the Winter Session a General Examination will be held in all the subjects in which instruction has been given; and Prizes will be awarded by the Board, varying from £1 1s. to £4 4s., to every Candidate who is considered to have shown merit of a high order.
- 5. A Student who belongs to Trinity College shall pay either (1) Five Guineas Entrance Fee to the Classes and a Special Fee of  $2\frac{1}{2}$  guineas for each Class which he attends during the Winter Session, and  $1\frac{1}{2}$  guinea for each Class he attends during the Summer Session; or (2) he may pay no Entrance Fee, but in that case he shall pay a Special Fee of  $3\frac{1}{2}$  guineas for each Class which he attends during the Winter Session, and  $2\frac{1}{2}$  guineas for each Class which he attends during the Summer Session.
- A Student who does not belong to Trinity College shall pay either (1) Five Guineas Entrance Fee to the Classes, and a Special Fee of  $3\frac{1}{2}$  and  $2\frac{1}{2}$  guineas for each Class which he attends in the Winter and Summer Sessions respectively; or (2) he may pay no Entrance Fee, but in that case he shall pay a Special Fee of  $4\frac{1}{2}$  guineas and  $3\frac{1}{2}$  guineas for each Class which he attends in the Winter and Summer Sessions respectively.

Students who have once paid the Entrance Fee will not be required to pay it again for any subsequent year in which the Classes are continued.

All Fees must be paid to the Registrar of the Classes previous to attendance at any Class. No Lecturer will receive the name of any Student unless he is shown the Registrar's receipt for the Fees.

Students wishing to join these Classes are requested to communicate with the Registrar of the Indian and Home Civil Service School, E. H. Alton, M.A., F.T.C.D., 40, Trinity College, Dublin, who will supply any further information which may be required.

# Army School.

The Regulations in force up to 1914 were printed in the Calendar for 1918-1919. Since 1914 the Army School has been suspended, and students who desired Regular Commissions were admitted to Sandhurst and Woolwich on the nomination of the University. New permanent Regulations for granting direct Regular Commissions to University Graduates are promised by the War Office, but are not yet published; they will probably differ considerably from the pre-war Regulations.

In the meantime, the system of nomination to Sandhurst and Woolwich will continue, but on a very reduced scale, as only one nomination to each College for every complete 250 Cadets on the strength of the O. T. C. may be made. For further information apply to the Adjudant of the O. T. C.

# Publin University Contingent, officers' training corps.

#### COMMITTEE OF MILITARY EDUCATION.

#### President.

THE PROVOST OF TRINITY COLLEGE, The Right Hon. and Most Rev. J. H. Bernard, D.D., Provost's House, Dublin.

# Ordinary Members.

R. Russell, M.A., F.T.C.D.

W. A. Goligher, Litt.D., F.T.C.D.

J. Fraser, M.A., F.T.C.D.

G. R. Webb, M.A., F.T.C.D.

Right Hon. Mr. Justice Ross, P.C., 66 Fitzwilliam Square.

Appointed as Officers of the Contingent.

The O. C.—Major G. A. Harris, D.S.O., O.B.E., 31 Sidney Parade.

Capt.—Capt. E. H. Alton, F.T.C.D., 5 Dartmouth Road.

The Adjutant.—Capt. M. Stacey, R.M.T., 8 St. Clare's Terrace, Harold's Cross.

Hon. Secretary—Major R. W. Tate, F.T.C.D., 34 Trinity College, Dublin.

Headquarters.—The Headquarters of the Contingent are at the Officers' Training Corps Buildings, Lincoln Place, Trinity College, Dublin.

All information with reference to the Corps can be obtained there, between the hours of 10 a.m. and 1 p.m.; 2 p.m. and 5 p.m.

Enrolment.—Intending Members should attend at Headquarters to obtain the enrolment and proposal forms, &c.

Only British subjects of pure European descent, who are physically fit, are eligible to join.

Conditions of Service. - No oath of allegiance is taken, and no liability for Service is incurred. Each member contracts:--

(a) To abide by the rules of the Corps.

- (b) To serve for three years (If in possession of Certificate A, a member contracts to serve for two years; also former Cadets who have served as Officers in the Army may join the Corps for a period of one or more years provided they join as Cadets. They will in all cases be given the rank they held on leaving the Corps).
- (c) To make himself efficient during each year of Service.

Efficiency .- To be efficient, a Cadet must in each year-

- (1) Attend not less than 30 Instructional Parades (60 if a Recruit).
- (2) Attend Camp for 15 days, and be present at the Annual Inspection, except in case of sickness, duly certified, or leave officially granted.
- (3) Undergo the prescribed training in Musketry (Medical Unit exempt).

Drills.—All Instructional Parades are arranged with a view to their causing as little interference as possible with College lectures or athletic engagements, pastimes, etc.

These parades consist of not less than 45 minutes' actual training. Not more than two parades may be counted in any one

day.

The times for parades are published in weekly orders, which are posted on the Contingent and Company notice-boards.

Special Field Days.—Field days will be arranged, if possible, once or twice a month. Each field day counts two parades.

Uniform.—Each Cadet is provided with all necessary arms, uniform, and equipment.

Cump.—All expenses, messing, transport, &c., are met by grants paid by the War Office.

Object.—The primary object of the Officers' Training Corps is to provide students at schools and universities with a standardized measure of elementary military training, with a view to their eventually applying for commissions in the Regular Army or Special reserve of Officers, or the Territorial Force.

For fuller information, see "Handbook of the Dublin University

Contingent, Officers' Training Corps."

# School of Agriculture.

ENTRANCE to the School of Agriculture is by Examination in general education; to be held in October. The Course for this examination will be English Composition, English History, Geography, Arithmetic, Elementary Algebra and Geometry, and one of the following:—Greek, Latin, French, German. The examination may be remitted in the case of students having credit for an equivalent educational test at any well-recognized institution. Entrance fee for external students, one guinea.

#### EDGE EXHIBITIONS.

The Edge Exhibitions are awarded at the Entrance Examination to the Agricultural School, and at the Final Examination for the Diploma.

At Entrance £4 and £2 to be given on the result of an examination in Agriculture. At the Final Examination £10 and £4 respectively to the Candidates receiving the highest marks in all subjects.

The Exhibitions are limited to students on the College Books,

or Graduates of Trinity College, Dublin.

(The Board and Council have approved of the following scheme of cooperation with the Department of Agriculture and with the Royal College of Science for Ireland):—

FIRST Two YEARS (taken at Trinity College).

First Year.

Second Year.

Analytical Chemistry and Practica

Organic Chemistry.

Mathematics.

Physics (general).

Practical Meteorology.

Chemistry (general princip

Chemistry (general principles). Drawing. Arts. Mechanics and Mathematics. Zoology. Botany. Geology. Arts

Agriculture.

SECOND Two YEARS (taken at the Royal College of Science).

Third Year.

Fourth Year.

Agricultural Chemistry.
Agricultural Geology.
Agricultural Engineering.
Arts (at Trinity College), with
professional privileges.

Agricultural Zoology.
Agricultural Botany.
Agricultural Bacteriology.
Veterinary Hygiene.
Arts (at Trinity College), with
professional privileges.

<sup>•</sup> Candidates must send notice (addressed to the Registrar of School of Agriculture Trinity College, Dublin) of their intention to enter, before the 1st October.

According to this scheme (which is on the lines of that framed by the Department) the student spends his first two years in the School in studying the general principles of the sciences which later find practical application in the scientific study of agriculture. He keeps the usual Freshman terms in Arts, and, if desirous of proceeding to the Degree in Agriculture, he also keeps the Sophister terms in Arts. During the Sophister years he receives "professional privileges" in Arts.

At the conclusion of the first two years the student is examined in the Science Courses pursued by him. This examination is conducted in Trinity College and by the Examiners of the University.

During the second two years the student studies Agriculture and Agricultural Science in the Royal College of Science and at the Farm at Glasnevin. During one of these years the student carries out research in Agricultural Science under the direction of one of the Professors or Lecturers of the Royal College of Science. Students who aim at obtaining a Diploma in the University of Dublin, and do not seek the Degree (Agr. B.) need attend no Arts lectures in Trinity College after passing the Final Freshman Examination. They would, after their first two years, take a less specialized course than that required for the Associateship of the Royal College of Science.

The final examination in Agriculture and Agricultural Science is conducted in the Royal College of Science, and mainly by the Professors of that College; but the University of Dublin is represented at that examination by an examiner appointed by Trinity College, and extern to the Royal College of Science.

The following particulars apply to the Courses pursued during the first two years in Trinity College. For the Courses pursued during the second two years the student must make application to the Royal College of Science for Ireland.

# First Year.

Mathematics, including Mensuration-

Three lectures per week during Michaelmas Term.

Fee for course for External Students, three guineas; for Arts Students, two guineas.

Paysics (general)-

Simple Measurements, Elementary Hydrostatics, Pneumatics, Heat, etc., delivered by the Professor during Michaelmas and Hilary Terms.

Fee for External Students, two guineas; free to Arts Students.

Practical Meteorology .- During Trinity Term.

External Students pay two guineas; Arts Students, one guinea.

<sup>\*</sup>External Students are Students, other than Graduates, whose names are not on the College Books.

#### Chemistry-

(a) The course of lectures on General Chemistry, three times per

week during Michaelmas and Hilary Terms.

(b) Practical Chemistry, three afternoons in the week during Michaelmas and Hilary Lecture Terms, and as far as practicable, during the interval between these terms, on three days in the week.

(c) Practical Chemistry during Trinity Term according to time

available.

Fee for course—External Students, six guineas; Arts Students, five guineas.

Drawing (Geometrical).—During Trinity Term.

Fee for External Students, three guineas; for Arts Students, two guineas.

[Total fees—External Students, sixteen guineas; Arts Students, ten guineas.]

# Second Year.

#### Chemistry-

(a) Twelve or more lectures and demonstrations on Analytical Chemistry. (b) Practical work in the laboratory (quantitative analysis) three days a week during two terms, and, if practicable, during the third term.

Fee for course—External Students, six guineas; Arts Students, five guineas.

# Mechanics and Applied Mathematics-

Three lectures per week in Michaelmas Term.

Fee for External Students, three guineas; Arts Students, two guineas.

# Zoology-

Three terms as given to Junior Sophisters.

Fee for course—External Students, four guineas; Arts Students, three guineas.

# Botany-

The lectures and demonstrations of the Professor, extending over ten weeks during Trinity Term.

Fee for External Students, three guineas; for Arts Students, two guineas.

# Geology-

The Professor's lectures and demonstrations over Michaelmas and Hilary Terms.

Fee for External Students, three guineas; for Arts Students, two guineas.

[Total fees-Externals, nineteen guineas; Arts, fourteen guineas.]

The fee for the Degree in Agriculture (Agr. B.) is £5.

VOL. I.

# School of Forestry.

THE Courses in Forestry of the Royal College of Science are open to Students of Trinity College in the School of Agriculture, replacing the agricultural work of the second two years of the School of Agriculture.

The Courses in Forestry would be taken at the Royal College

of Science, and would be as follows:-

3RD YEAR.

(a) October to June-3 Terms.

Forestry.

Forest Engineering and Surveying.

Forest Zoology.

Forest Botany, including Structure of Timber and Diseases of

Soil Geology.

Elementary Agriculture.

Arts (at Trinity College), with professional privileges.

# (b) July to September.

Outdoor work for three months at Avondale, or in an approved Irish or British Forest.

4TH YEAR.

(a) October to March-2 Terms.

Forest Botany, including Structure of Timber and Diseases of Trees.

Forest Zoology. Forest Chemistry.

Practical Work on Excursions.

Arts (at Trinity College), with professional privileges.

# (b) Third Term-April to June,

Outdoor work for three months in an approved Continental Forest.

These Courses, along with the first two years' curriculum of the School of Agriculture, as at present arranged, would entitle the Student to the Diploma in Agriculture (Forestry) of the University; or, provided the B.A. has been obtained, to the Degree in Agriculture (Forestry), Agr. (Forest.) B. The fee for the Degree is £5.

# Examinations for Qualifications in Education.

The Examinations for Qualifications in Education are held twice a year. The candidates are first examined in Theory and History; and if their answering be satisfactory, they are called on to teach before the Examiners.

Three Qualifications are granted—viz. the Certificate in Elementary Education, the Diploma in Education, and the Diploma with Distinction.

Candidates must produce satisfactory evidence (a) that they are of good character; (b) that they have had sufficient experience of teaching (which must extend over a year at least), or have undergone a year's training at a recognized Training College; and (c) that their scholastic attainments are adequate.

The usual requirement for admission to the Examination for the Diploma in Education is that the candidate shall have graduated in some University under the British Crown. For the Certificate in Elementary Education, the candidates must have passed the "Final Examination of King's Scholars," or must have been ranked as First or Second Class Teachers under the rules of the Board of National Education in Ireland in force before the year 1900.

For the year 1920 all candidates for Qualifications in Education are expected to study—

Dumville, The Fundamenials of Psychology (University Tutorial Series, W. B. Clive).

Welton, Logical Bases of Education (Macmillan).

Bagley, The Educative Process (Macmillan).

Culverwell, Montessori Principles and Practice.

Mouroe, Text Book in the History of Education, chap. vi. to end (Macmillan).

They are also required to show a general knowledge of the Hygienic Principles bearing on Schools and School-work.

Candidates for the Certificate in Elementary Education are expected to study, in addition to the above, Salmon's Art of Teaching, or Landon's Principles and Practice of Teaching and Class Management.

Candidates for the Diploma in Education are expected to study a more extensive Course, to be arranged or approved by the Examiners, including other works set for the Arts Course in Education.

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The Diploma with Distinction is granted on the result of a second and stricter examination. Those only will be admitted who have attained a high standard at a previous Diploma Examination.

Essays by candidates may be required in addition to Examina-

tion in the Hall.

Candidates must also select, from the following list, certain subjects in which they are prepared to give lessons before the Examiners. In the case of candidates for the Certificate not less than five subjects should be named; other candidates may, if the Examiners approve, select fewer subjects. The list of subjects selected must be sent to the Registrar of the School of Education, so that it shall be received a fortnight before the stated date of the Examination in Theory and History.

1. Arithmetic. 2. Algebra. 3. Euclid. 4. Elementary Science. 5. English Literature. 6. History. 7. English Grammar and Composition. 8. Physical and Descriptive Geography. 9. Kindergarten. 10. Object Lesson. 11. French. 12. German. 13. Latin. 14. Greek.

If candidates show sufficient merit at the Examination in Theory and History, the Examiners will direct them to prepare and send for their inspection copies of their notes of certain lessons in the subjects they have selected. A suitable class will be provided on the day arranged for the Examination (which will be chosen, as far as possible, to meet the convenience of the candidates); and in addition to one or more of the prepared lessons, the Examiners may call upon the candidates to give a short unprepared lesson in any one of the subjects they have selected.

The fee payable for the Diploma Examination is £2 2s. for Graduates of the University of Dublin, and £4 4s. for other candidates, except those seeking only the Certificate in Elementary Education, who pay £3 3s.; it may be paid in equal moieties if the Examinations in Theory and in Practice are taken at different dates; and a candidate who fails to reach the desired standard may, with the permission of the Examiners, be allowed to present himself a second time for either examination on payment of £1 1s. The fee for the additional Examination for the Diploma with Distinction is £1 1s., for graduates of the University of Dublin, and £2 2s. for other candidates.

In 1920, the Examination in Theory and History will be held on Friday and Saturday, April 23, 24; and on Friday and

Saturday, October 22, 23.

The dates on which the candidates are required to teach before the Examiners will be arranged as far as possible to suit the convenience of the candidates who have entered their names.

Candidates must send their fees to the Registrar of the School of Education a fortnight before the date of the Examination.

Further information will be supplied on receipt of a stamped and directed envelope.

# Diploma in Economics and Commercial Knowledge.

- 1. This Diploma will be granted for proficiency in the various branches of a higher business education, as tested by an Examination.
- 2. The Examination will be open to anyone who can produce evidence (a) that he is of good character; (b) that he has a satisfactory Preliminary Education: e. g., that he has matriculated in any University or University College; has passed the Middle or Senior Grade Intermediate Examination; has the certificate of any recognized Technical School or School of Commerce; or possesses any other qualification deemed sufficient by the Board.
- 3. The Examination will be held annually on days named in the University Almanac. In 1920 it will be held on April 6, 7, 8, and 9. It shall be in the power of the Examiners, if it is thought advisable, to hold parts of the Examination at night, a week's notice at least being given to the candidates.
- 4. Candidates will be required to give at least one month's notice of their intention to compete for any portion of the obligatory subjects of the Examination: and at least three months' notice of the special optional course or courses which they intend to offer.
  - 5. The Course for the Examination will be as follows:-

### OBLIGATORY SUBJECTS.

# I .- Economics, Descriptive and Theoretical.

Candidates will be required to have a general knowledge of the scope and method of economics, and the principles of production, exchange, and distribution. Also an acquaintance with the chief forms of industrial organization, especially those existing in the United Kingdom.

[Nicholson, Elements of Political Economy, or Devas, Political Economy, may be used as a convenient text-book. Marshall, Elements of Economics; Hadley, Economics; and Pierson, Principles of Economics, Vol. I., will be found useful for additional reading.]

# 11 .- Economic and Commercial History.

The outlines of the industrial and commercial development of Great Britain, Ireland, and the Colonies during the eighteenth and nineteenth centuries. Particular attention should be paid to the growth of the great industries and the progress of trade.

[T. Warner, Landmarks of English Industrial History, may be used as an introduction. For Irish History, Murray, Commercial Relations between England and Ireland. For reference, Meredith, Economic History of England, and Cunningham, Growth of English Industry and Commerce, Vol. II.]

# III .- Commercial Geography.

(a) General physiographical conditions.

(b) The chief economic products.

(c) The economic conditions and resources of the chief countries the world.

(d) Trade routes. .

[Chisholm, Smaller Commercial Geography, or Adams, Commercial Geography. For additional reading Chisholm, Handbook of Commercial Geography, is recommended.]

# IV .-- Accountancy and Business Methods.

(a) The principal forms of accounts. The preparation of a Balance sheet. Cost-taking. Depreciation and the formation of reserves.

(b) Organization of business departments. Office work.

[Cropper, Book-keeping and Accounts. Lisle, Accounting in Theory and Practice. Dicksee, Office Organization.]

# V .- Commercial and Industrial Law.

(a) The law of contract. The principal trade contracts. Company law. Negotiable instruments.

(b) The factory code. Workmen's compensation. Employers' liability.

Steven, Mercantile Law.

Redgrave, The Factory Acts.

For further reading, Topham, Company Law, and Anson, 'Contracts' are recommended.]

# OPTIONAL SUBJECTS.

[Of which one under each head may be taken.]

# VI .- A Modern Language.

(1), French.

(2) German. (3 Spanish.

Candidates will be tested in translation from and into English, dictation, and conversation.

# VII .- Special Economic Subjects.

Candidates who take one of the Optional Economic subjects will be expected to possess a fuller knowledge of the theory and of the facts relating to the subject that they select. Particular attention should be given to the modern developments in theory and to the existing conditions.

# (1) -- Money and Monetary Systems.

Definition and historical development of money. The conditions that determine the value of money. The different monetary systems. The history of the English currency. Monetary changes in the nineteenth century. Controversies respecting the standard of value. The actual monetary systems of the world.

[Jevons, Money, and Nicholson, Money and Monetary Problems,

are recommended.

F. A. Walker, Money, Withers, The Meaning of Money, and Conant, The Principles of Money and Banking, may be used for further reading.

(2)-Foreign Trade.

The nature of foreign trade and the conditions on which its development depends. Values in foreign trade. The use of money in foreign trade. The foreign exchanges. Imports and exports. The regulation of foreign trade and its effects. Customs duties.

> Fisk. International Commercial Policies. Giffen, The Use of Import and Export Statistics. Clare, The A B C of the Foreign Exchanges.

# (3) - Taxation.

The development of taxation. The different kinds of taxes. The principal rules of taxation. Direct and indirect taxation. General and local taxation. The incidence and effects of taxation.

[Plehn, Public Finance, Part II., or G. Armitage Smith, Taxation, is recommended as an introductory book.

Blunden, Local Taxation, and J. S. Mill, Principles of Political Economy, Book V., chaps. 2-6, may be used for further reading.]

# (4) - Associations and Combinations in Trade and Industry.

- (a) The growth of association in the modern economic system. Trusts and Kartells. Combination and monopoly. The control of combinations by the State.
- (b) The rise and growth of Trade Unionism. Effects of workmen's combinations. Modern Trade Union problems.

[Jenks, The Trust Problem, and Howell, Trades Unionism Old and New, are recommended.

J. B. Clark, The Control of Trusts.
M'Crosty, The Trust Movement in British Industry.

S. and B. Webb. The History of Trade Unionism, may be used for additional reading.

# (5)-Statistics and Statistical Methods.

Nature and scope of statistics. Use of averages. Tabulation. Elementary graphic methods. The use of indexnumbers. Tests of accuracy. The statistics of population, trade. prices, wages, and employment.

Bowley, An Elementary Manual of Statistics, is recommended as a convenient introductory book. For further reading, Mayo-Smith,

Statistics and Economics, may be used. ]

# VIII .- Special Subjects in Economic and Business Organization.

Candidates who take one of the Optional Business subjects will be expected to have an adequate knowledge of the development of the class of business and of its organization. The methods pursued, and the economic principles underlying them, should also be studied.

# (1) -Banking and Credit Institutions.

The functions of banks. Credit as an economic agent. The growth of banking in Great Britain and Ireland. Banking legislation. The Bank Charter Act, 1844. Modern banking problems. Banking in other countries.

[Dunbar, Theory and History of Banking, is recommended as an introductory text-book. Clare, Money Market Primer.

Bagehot, Lombard Street;

and

Rae, The Country Banker, will supply a general account of British banking.

For the law of bills, cheques, and promissory notes, Chalmers, Bills of Exchange Act, 1882, should be read.
For reference, Hart, Treatise on the Law of Banking; or

Chalmers, Digest of the Law of Bills of Exchange, &cl.

# (2)-Railways and Transport Agencies.

The rise of the modern transport system. The railways of Great Britain and Ireland. Principles of railway rates. Legislation respecting railways. Competition and combination in transport. The general features of foreign railway systems.

[Acworth, Railway Economics, and Hadley, Railroad Transportation, are recommended.

Findlay, Working and Management of an English Railway, Grierson, Railway Rates, may be consulted.

# (3)-Insurance.

The general character of insurance. The different kinds of insurance. The theory of insuring risks. Growth of insurance business. Insurance Law.

[T. E. Young, Insurance.

F. Harcourt Kitchin, The Principles and Finance of Fire Insurance.

W. Schooling, Life Insurance Explained.

W. Gow, Marine Insurance.

C. F. Morrell, Insurance: a Manual of Practical Law.]

### (4)-Agriculture.

The different systems of farming. Small and large farms.

Land-rent and its variations.

Combination in agriculture. Farmers' associations. Agricultural credit. Insurance. The effect of markets on agriculture. Transport charges. Fluctuations in prices. Model farms. The State and agriculture. Effects of taxation.

[Taylor, Agricultural Economics; Rogers, The Business Side of Agriculture; Pratt, Organization of Agriculture, and The Report of the Recess Committee, are recommended.]

6. Candidates, in order to obtain any credit for the Examination, must pass in *three* subjects, of which Economics, theoretical and descriptive, must be one.

Candidates who satisfy this condition may pass in the remaining

subjects at a subsequent Examination.

The Diploma will not be issued until the candidate has passed

in all the obligatory subjects.

7. The Diploma will be given for proficiency in the Obligatory portion of the Examination. The Optional Courses, in which the candidate passes, will be further specified on the Diploma. Exceptional excellence in any subject will also be indicated.

8. Members of Trinity College will be allowed to present themselves for the Examination each year on payment of a fee of One Guinea. Candidates who are not members of Trinity College shall pay a fee of Two Guineas each year. The fees should be paid to the Junior Bursar not later than three days before the commencement of the Examination.

9. The obtaining of this Diploma will be accepted as equivalent for the exercises required for keeping the Hilary and Trinity Terms of the Senior Sophister year, but not for the B.A. Degree

Examination.

10. Candidates who propose to present themselves for the Examination for this Diploma should communicate with Professor C. F. BASTABLE, Trinity College, Dublin, who will give any further information which may be required.

# Diploma for Momen in Religious Knowledge.

- 1. The Examination shall be under the direction of the Regius Professor of Divinity, and shall be open to all women, whether members of the University or not.
- 2. It shall consist of three divisions, one or more of which may be taken at any time, and in any order.
- 3. It shall begin usually on the Wednesday next after October 9th, January 9th, and April 14th; and candidates shall send their names to the Lady Registrar, 5, Trinity College, not less than one month before the date of the Examination, stating for which division or divisions they intend to offer themselves. In the years 1919, 1920 the Examination will begin on October 15, 1919, and January 14, April 21, October 13, 1920.
- 4. If a candidate fails in one paper, she may add that paper to the next division for which she enters; but if she fails in any paper in the last of her three divisions, she must take the whole of that division again.
- 5. The fee payable for each division shall be £1 1s. for women who have matriculated in the University, and £2 2s. for those who have not. This must be paid to the Junior Bursar at the same time that application is made for admission to the Examination.
- 6. Successful candidates will receive a Diploma in the following form:—

7. The subjects for examination shall be as follows:-

#### Division I.

- Paper 1. The history and religious thought of Israel to the accession of Uzziah.
  - 2. The four Gospels in English.
  - The history and the contents of the Apostles' and the Nicene Creeds.

#### Division II.

- 4. The history and religious thought of Israel from the accession of Uzziah to the close of the Old Testament.
- The Acts and Epistles in English, including the occasion and destination of the several Epistles.
- 6. (a) The history of the Celtic Church and of the Anglo-Norman Church in Ireland. (b) The history of the Church in England from the accession of Edward III to the accession of Queen Anne.

#### Division III.

- 7. The history and contents of the Book of Common Prayer, with special reference to Baptism and the Holy Communion.
- 8. The history of the Christian Church (excluding the New Testament) to the Council of Chalcedon.
- 9. One of the following:-

The Book of Genesis in Hebrew. The Epistle to the Romans in Greek. The comparative study of religions.

\*\*\* All questions in Divisions I and II on the text of the Old and New Testaments will have reference to the Revised Version.

Candidates will not be examined in particular books, but the following, among others, will be found useful for study:—

- Papers 1 and 4. Wade, Old Testament History, London, 1901; Foakes Jackson, The Biblical History of the Hebrews, Cambridge, 1909; Chapman, An Introduction to the Pentateuch, Cambridge, 1911; W.R. Smith, The Prophets of Israel, London, 1895; The Old Testament in the Jewish Church, London, 1892; G. A. Smith, The Book of Israeh, London, 1889; The Book of the Twelve Prophets, London, 1896; Kautzsch, Article Religion of Israel, in Hastings' Dictionary of the Bible, extra vol.
  - Sanday, article Jesus Christ, in Hastings' D. B., vol. ii, afterwards published as Outlines of the Life of Christ, Edinburgh, 1906; Studies in the Synoptic Problem, ed. Sanday, Oxford, 1911; J. A. Robinson, The Study of the Gospels, London, 1902; J. M. Thompson, The Synoptic Gospels arranged in Farallel Columns, Oxford, 1910.
  - Swete, The Apostles' Creed; Burn, The Apostles' Creed, London, 1906; The Nicene Creed, London, 1909; Bp. Gibson, The Thirty-nine Articles, London, 1898, Exposition of Articles i-v and viii.

- Conybeare and Howson, The Life and Epistles of St. Paul; Hort, Judaistic Christianity, Cambridge, 1894; Ramsay, St. Paul the Traveller and the Roman Citizen, London, 1897; Rackham, The Acts of the Apostles, London, 1901; Kirsopp Lake, The Earlier Epistles of St. Paul, London, 1911.
- Perry, A History of the English Church, vols. i, ii, London, 1881; A History of the Reformation in England, London, 1886; Stephens and Hunt, A History of the English Church, vols. iii-vi, London, 1899; Stokes, Ireland and the Celtic Church (ed. 6, Lawlor), London, 1907; Ireland and the Anglo-Norman Church, London, 1889.
- Procter and Frere, A History of the Book of Common Prayer, London, 1908; Srawley, The Early History of the Liturgy, Cambridge, 1913; Swete, Church Services and Service-books before the Reformation, London, 1896; Dowden, The Workmanship of the Prayer-Book, London, 1899; Further Studies in the Prayer-Book, London, 1908.
- Foakes Jackson, History of the Christian Church (to 451 A.D.), Cambridge, 1914; Gwatkin, Early Church History (to 313 A.D.), London, 1912; Bright, The Age of the Fathers, London, 1903; Bethune-Baker, An Introduction to the Early History of Christian Doctrine, London, 1903.
- Genesis: Spurrell, Notes on the Hebrew Text of the Book of Genesis, Oxford, 1896.

Romans: Sanday and Headlam (Internat. Crit. Comm.),

Edinburgh, 1902.

Comparative Study of Religions: W. R. Smith, Lectures on the Religion of the Semites, London, 1894: Cumont, Les Religions Orientales dans le Paganisme Romain, Paris, 1909; Geden, Studies in the Religions of the East, London, 1913; Jevons. Comparative Religion, Cambridge, 1913; Legge, Forerunners and Rivals of Christianity, Cambridge, 1915.

In addition to the above, articles in the following dictionaries may frequently be consulted with advantage:—For Papers 1, 2, 4, 5—Hastings' Dictionary of the Bible; for Papers 7, 9 (Comparative Study of Religions)—Hastings' Encyclopædia of Religion and Ethics; for Paper 8—Wace and Piercy's Dictionary of Christian Biography.

# Unibersity Appointments Association.

This Association was formed in 1902, under the sanction of the Board of Trinity College, with the object of assisting Students and Graduates of the University to obtain appointments and employments at home or abroad, under the Government or otherwise.

The Executive Committee of the Association keep a Register of Students and Graduates desiring appointments, with a record of their qualifications. They collect and supply to those who register, information as to posts vacant, either at home or in the Colonies, in the various branches of the Civil Service, in Medicine, Engineering, Scholastic work, &c.; and endeavour to place applicants in communication with Boards, Firms, Agencies, &c., who desire to find men to fill such posts.

Those who wish to place their names on the Register should obtain from the Secretary a Form of Application, and subsequently should notify the Secretary in case of change of address. The Committee will not undertake to recommend for an appointment

any applicant of whose fitness they are not satisfied.

The Committee hope that Graduates who reside at a distance will join the Association as corresponding members, and will co-operate by keeping the Secretary informed as to openings that may offer in different lines.

No fees are charged.

All communications should be addressed to the Secretary.

On 21st December, 1918, the work of the Association was reorganised to co-operate with the Ministry of Labour in meeting the situation brought about by the termination of the war.

A small Committee was appointed with the following terms of

reference :--

"To deal with the business of finding appointments and work for members of the College, especially for those who are serving with the Forces, and wish to get back to civil life on demobilisation."

Subsequently this Committee was given power to co-opt additional members.

#### Committee.

Edward John Gwynn, M.A., Fellow and Junior Bursar.

William E. Thrift, M.A., Fellow and Professor of Experimental Philosophy.

William Kennedy, M.A., Fellow and Tutor.

William A. Goligher, M.A., Litt.D., Fellow and Tutor.

James Thomas Jackson, M.A., Assistant to the Professor of Civil Engineering.

Joseph Johnston, M.A., Fellow and Tutor, Secretary.

# INTENSIVE ARTS COURSE FOR INTENDING STUDENTS WHO HAVE DONE WAR SERVICE.

THE decision as to the admission of applicants under the Intensive Arts Course Scheme rests with the "War Privileges" Committee, subject to appeal to the Board.

Communications should be addressed to the Hon. Sec., War Privileges Committee. Trinity College, Dublin, marked "I.A.C."

The I.A.C. Scheme has been drawn up to meet the requirements of officers and men who have served in the war, and had not previously entered Trinity College, but are now desirous of doing so. Under its provisions a student will be able to take the B.A. Degree within approximately two years from date of entrance.

Each case is considered on its merits by the "War Privileges"

Committee.

There are various modifications of the Scheme to meet the cases of students who wish to take a Professional Course concurrently with the Arts Course (see below).

The conditions for admission under the I.A.C. Scheme are:-

- 1. The applicant must have done two years' war service.
- 2. The applicant must satisfy the Committee of his educational fitness. He must have either (a) obtained the Special Army Education Certificate; or (b) have had such a school education that, in the judgment of the Committee, he might have been expected to pass the Trinity College Matriculation Examination at the end of his School Course.\*

Applications for admission must be made to the Hon. Sec., War Privileges Committee, either directly or through a College Tutor.

An applicant must produce a letter from his Commanding Officer, or other evidence of having served with the Forces for two years.

His application should also contain the following particulars:-

- (a) His full name, with his present and permanent addresses.
- (b) Date of joining the Forces, and particulars of his service record.
  - (c) His age on leaving school and present age.
  - (d) Name of his school and particulars of school record.
  - (e) Particulars of any Public Examination passed.

On application made, the War Privileges Committee will consider the cases of those who are otherwise suitable for admission under the I.A.C. Scheme, but fall short of the educational standard required by Condition 2. In suitable cases some less extensive privileges may be granted.

N.B.—Examination Certificates, or a letter from the Headmaster, should, whenever possible, be enclosed with the application.

HUII.

The application will be considered at once by the Committee,

and notification of the result sent to the applicant.

Students admitted under the I.A.C. Scheme are exempted from the Matriculation Examination and the exercises of the first two College years. As soon as the Entrance Fee is paid they have the College standing of Junior Sophisters.

The Course lasts for two years of four Terms each—viz. the ordinary Michaelmas, Hilary, and Trinity Terms, with the addition of a Long Vacation Term. Terms must be kept

consecutively.

Attendance on Lectures is compulsory for all the eight Terms; in addition, one Term Examination before the end of the first

year, and the Degree Examination, must be passed.

A student may enter at the beginning of any of the four Lecture Terms, and his Arts Course will terminate at the Degree Examination next after the completion of his 8th Lecture Term.

There is only one examination on the lectures of the Trinity and Long Vacation Terms, which is the ordinary examination

held at the opening of Michaelmas Term.

The subjects for lectures and examinations are those for the Junior Sophister and Senior Sophister years specified in the CALENDAR, and the ordinary regulations as to number and choice of subjects apply to I.A.C. students.

Subject to the approval of the Senior Lecturer, students may choose their subjects, three in their first year and four in their second year, without distinction of Junior and Senior Sophister

Courses.

The programme of the Long Vacation Term will be published

in Trinity Term.

I.A.C. students are on the College books, and are granted all the ordinary College privileges, such as chambers in College (if available) and are eligible for membership of College clubs.

The total amount of Arts Fees payable by I.A.C. students is

the same as for ordinary students, viz., £82 4s.

A candidate whose application for admission under this Scheme has been granted must pay the entrance fee of £15 before beginning his College Course.

The fee of £8 8s. is payable quarterly, in advance, a fortnight

before the commencement of each lecture term.

Tardy payment fines are at the rate of 3s. per week for two weeks; after that time no fee can be received except by special permission from the Senior Lecturer.

Fees are payable to the Junior Bursar.

I.A.C. students in Professional Schools may keep their names on the College books for two years after the conclusion of their 8th term without extra payment of Arts fees. The Schools of Divinity, Law, Physic, Dental Science, Engineering, Indian and Home Civil Service, Army, Agriculture, and Forestry, and the diplomas in Education and Economics and Commercial Knowledge are open to I.A.C. students under the same regulations as for ordinary students.

The usual Professional Privileges are given to I.A.C. students, which in most cases give exemption from one Arts Lecture and

one optional subject at Arts Examinations.

Special arrangements are made for Medical Students (see below).

N.B.—There are no Professional Privileges in the Long Vacation Term.

The Senior Lecturer, on being satisfied with the evidence as to their educational fitness, will give to I.A.C. students a certificate that will satisfy the requirements of the General Medical Council, and enable the students to join the Medical School at the opening of the October or April Session without further examination.

The Arts Course for I.A.C. Medical Students is the same as that for other Medical Students of Junior Sophister and Senior Sophister standing, with the addition of the Long Vacation term in both years. Thus the I.A.C. Medical Student will only have to keep Trinity and Long Vacation terms in two years in Arts. He will obtain credit for those terms when he has attended lectures and passed a lecturer's examination at the end of term in English Composition and the subjects in which he has been lectured.

When the student has completed the last of these four terms, provided he has made satisfactory progress with his medical studies, he may present himself for the Arts portion of his Degree Examination (for definition of "satisfactory progress," see

p. 272, § 7).

# Library of Trinity College.

# Library Hours.

THE Library is open on week-days, except Saturday, from 10 to 4 o'clock, from February 1 to October 31; and from 10 to 3 o'clock during the months of November, December, and January; and on Saturdays throughout the year from 10 to 1 o'clock.

The Reading Room is open on week-days from 10 to 6 o'clock, except during the months of July and August, when it closes at 4 o'clock, and except on Saturdays throughout the year, when

it closes at 1 o'clock.

The Reading Room is also open in the evening from 7 to 10 o'clock, except on Saturdays, and during the months of July and

August.

The Library (including the Reading Room) is closed on Christmas Day, and the three week-days following; on Good Friday, Easter Eve, and Easter Monday; on Monday in Whitsun Week; and on the Bank Holidays, St. Patrick's Day, the King's Birthday, and the first Monday in August. It is also closed for a fortnight in July at a date fixed in the Calendar.

# Admission of Readers.

Life Admission is granted only to Graduates of the Universities of Dublin, Oxford, and Cambridge.

Six-month tickets are issued to Undergraduates of Trinity

College in their Sophister years.

Six-month tickets are issued to Undergraduates in their Freshman years, on recommendation by their tutor, with the approval of the Board.

Six-months' tickets may be granted by the Provost, on the recommendation of the Librarian, to strangers not being Students or Graduates. To avoid overcrowding, these tickets may be restricted so as to admit only between specified hours.

All readers, on admission, are required to make and sign the Library Declaration before the Provost, and to sign the Readers'

Admission Register.

Temporary permission to consult specified books is granted to strangers at the Librarian's discretion.

# Historical Summary.

In the year 1601, the Spanish troops were defeated by the English at Kinsale, and Her Majesty's army, to commemorate their victory, subscribed the sum of £1800, from the arrears of their pay, to establish in the University of Dublin a public Library. Dr. Challoner and Mr. James Ussher, afterwards the celebrated Archbishop, were selected by the benefactors as the trustees of their donation, and

<sup>\*</sup> Dr. Mahaffy, in his "Epoch in Irish History," gives a different account of this matter,

commissioned to purchase such books as they should judge most necessary and useful for the advancement of learning. "And it is somewhat remarkable" (says Dr. Parr) "that at this time [1603], when the said persons were at London about the laying out this money in books, they then met Sir Thomas Bodley there, buying books for his new erected Library at Oxford, so that there began a correspondence between them upon this occasion, helping each other to procure the choicest and best books on several subjects that could be gotten: so that the famous Bodleian Library at

Oxford, and that of Dublin, began together."

The private collection of Ussher himself, consisting of 10,000 volumes, with many MSS. of great value, was the first donation of moment which the Library received; and for this also literature is indebted to the officers and soldiers of the English army. In 1640, Ussher left Ireland, and the insurgents soon after destroyed all his personal property, with the exception of his books, which were fortunately secured, and soon after conveyed to Chester, and from thence to London. In 1642, Ussher was nominated one of the Westminster Assembly of Divines, but refused to attend, and even preached against their proceedings at Oxford. For this crime his library, or a portion of it, which he had left behind him at Chelsea College, was seized and confiscated by order of the House of Commons, as the property of a delinquent; but John Selden, his particular friend, by the interference of Dr. Featly, obtained permission to purchase them as if for his own use, though really for the purpose of restoring them to their original owner. On the Archbishop's death in 1655, although he had destined his books for Trinity College, the misfortunes of the times compelled him to leave them to his only daughter, Lady Tyrrell, then mother of a numerous family, and in narrow circumstances. Proposals were soon after made to her for the purchase of the library, by the King of Denmark and Cardinal Mazarin: but Cromwell issued an order prohibiting the Primate's family from selling it without his consent, and he refused to permit it to be brought out of the kingdom. Soon after, the officers and soldiers of the army then in Ireland, wishing to emulate those of Elizabeth, purchased the whole Library for the sum of £2200, together with all the Archbishop's manuscripts, and a choice though not numerous collection of ancient coins, with the design of presenting them to the College. But when the books were brought over to Ireland, Cromwell refused to permit the intentions of the donors to be carried into effect, alleging that it was his intention to found a new College or Hall, in which the collection might more conveniently be preserved separate from all other books. The library, therefore, was deposited in the Castle of Dublin, and being there kept with great negligence, an immense number of valuable books and MSS. were stolen or destroyed. At length, on the Restoration, His Majesty King Charles II. ordered that what remained

Parr, p. 47. b Ibid., p. 50.

of the Primate's library should be given to the University, accord-

ing to the generous purpose of the original purchasers.

In 1674, Sir Jerome Alexander, one of the Justices of the Common Pleas in Ireland, left his collection of law books to the College, with £100 for fitting up a place for them; as also the valuable MSS. contained in Class G in the Manuscript Room.

In the year 1726, the Library received an addition of upwards of 4000 volumes, from the books bequeathed to it by Dr. Wm. Palliser, Archbishop of Cashel, who had been a Fellow of the College, and also during his lifetime a munificent benefactor to it. The following extract from his will contains the conditions of this

valuable bequest :-

"Item, I devise unto the Provost, Fellows, and Scholars of the College of the Holy Trinity near Dublin, and their successors, such of my books of all kinds as they now have not, or at the time of my death shall not be furnished with, to be sorted, and set out by the Rev. Doctor Claudius Gilbert, and my said son, William Palliser. Item, I devise unto the said Provost, Fellows, and Scholars, and successors, such editions of my books as they now have not, or at the time of mydeath shall not be furnished with, to be in like manner sorted and set out by the said Doctor Gilbert and my said son, William Palliser. Provided always, and my will is, that the editions and books hereby devised shall go by the name, and be always called Bibliotheca Palliseriana, and that the same shall be, and continue placed and kept next to the library devised to the Provost, Fellows, and Scholars, by the late Lord Primate Ussher, now called Bibliotheca Usseriana. And my farther will and meaning is, that if the said Provost, Fellows, and Scholars, or their successors, shall at any time fail to call the editions and books hereby devised by the name of Bibliotheca Palliseriana, or shall at any time fail to keep them next to the said library, devised by the late Lord Primate Ussher, the disposition hereby made to the said Provost, Fellows, and Scholars, and their successors, shall, upon such failures become void and of no effect."

Another most valuable addition to the Library was the collection of Dr. Claudius Gilbert, Vice-Provost and Regius Professor of Divinity, consisting of nearly 13,000 volumes. In the year 1735 he retired on the living of Ardstraw, and soon after presented his Library to the College, having spent his whole life in collecting books for that purpose.\*

In 1741, Dr. John Stearne, Bishop of Clogher, and Vice-Chancellor of the University, bequeathed to the Library the valuable collection of MSS. preserved in Class F of the Manuscript Room, together with all such books from his private collection as were not

already in the Library.

Besides these, the Manuscript Library is indebted to Dr. Miles

a The following passage appears in the "Annual Register" for 1759:—
Doctor Claudius Gilbert, formerly Vice-Provost of Trinity College, Dublin. This extellent person besides other valuable donations, bequeathed to that College a collection of

books consisting of 13,000 volumes, chosen with great discernment and care. His bust was this day (Feb. I, 1758) placed at the head of the books. It is the workmanship of Verproil, and for expression and elegance does great credit to the taste and skill of the Statuary

Sumner, admitted a Fellow during the Commonwealth, and afterwards for many years Donegal Lecturer in Mathematics in the University; to Sir William Gore; Sir Henry Pressot; Dr. Henry Jones, Bishop of Meath and Vice-Chancellor of the University; Dr. John Parker, Archbishop of Dublin; William Barry, M.A.; John Lyon, M.A., and Librarian; Thomas Hey of Chester ("Cestensis Signifer"), A.D. 1646; Gordian Strowbridge; Murtogh Dowling, Esq., A.D. 1693; Charles Willoughby, M.D.; Cornelius Higden; and Edward Worth, M.D. Besides these, Peter Carewe, President of Munster in the reign of Elizabeth, gave to the Library a valuable collection of Irish Manuscripts.

In 1774, the sum of £100 was bequeathed to the Library by Thomas Holles, Esq., to be applied to the purchase of books written by English, Irish, or Scotchmen, upon Politics, Natural and Civil

History, and Mathematics.

A very considerable addition was made to the Library in the year 1802, when the Fagel Library, consisting of upwards of 20,000 volumes, was purchased by the Board of Erasmus Smith for £10,000, and presented to the University. This valuable collection was made by M. Greffier Fagel, Pensionary of Holland, and in 1794, when the French invaded that country, was removed to England for sale, and there purchased for the College.

In the year 1805, a small but choice collection of books, including many Editiones Principes of the Classics, was bequeathed to the Library by Henry George Quin, Esq., under the conditions expressed in the following extract from his will, dated September 23,

1794:-

"I give and bequeath my large mahogany book-case, together with such of my books and manuscripts as are specified in a catalogue bound in red morocco leather, written in my own hand, and marked with the letters L.T. C. D., which book-case, books, and manuscripts, together with the catalogue itself, and the hammer which was presented to me at Amsterdam by Signor Crevanna, I give and bequeath for ever to the Provost and Fellows of Trinity College, Dublin, in order that they may be placed in the Library of the College. And as most of the books hereby bequeathed are of considerable value, and on that account the more liable to be stolen if placed in a situation easy of access, it is my will and desire that they be deposited, not in the great public room of the Library, but in that part of it called the Manuscript Room. And it is my will that the book-case hereby bequeathed which is to contain them, may be placed exactly in the centre of the side of the room, opposite to the door of entrance, and I desire that the words Bibliotheca Quiniana, in capital letters, two inches in height, and gilt on a dark-coloured ground, be put on the top of the two central doors of the aforesaid book-case, one word on each door. And it is my will and desire, that the said book-case be generally kept locked, and that it be never opened, or the books handled by any person, but in presence of the librarian or his assistant, one of whom shall always keep the key thereof. And it is my desire that none of the books hereby bequeathed shall ever be taken out of the Manuscript Room. desire likewise that none of them shall ever be rebound, or any new or additional covering or lettering of any kind be put upon them, but that they shall always remain precisely in the same state wherein they shall be found at the time of my decease. And I desire that a copy of the part of my will which relates to the disposal of my books be sent by my executors to the Provost and Senior Fellows, within one month after my decease, in order that my bequest may, in every particular, be fully carried into effect."

The Library is continually increased by copies of every book published in England. This privilege it enjoys by Act of Parliament, 54 Geo. III. cap. 156.

In addition to gifts from Colonial and Foreign Governments, Universities, Academies, Institutions, and Societies, the following presentations were made to the Library between July 1, 1918, and June 30, 1919:—

Lady Thompson presented a collection of books on physiology from the Library of Sir Henry Thompson, Sc.D., K.B.E., for use in the School of Physiology in his memory.

A collection of books on metaphysics which had belonged to S. G. Stewart, M.A., F.T.C.D., killed in action in 1918, was pre-

sented to the Lending Library in his memory.

Professor A. F. Dixon, Sc.D., presented Irish political pamphlets, and procured a complete collection of the recruiting posters used in Ireland from Captain Rupert Magill, of the Irish Recruiting Council.

Miss R. Mahaffy presented a shell case which fell in the Provost's

Garden during the Rebellion of 1916.

Menu of the Trinity College dinner in Jerusalem, 24th August, 1918, with signatures of the diners.

From Rev. W. H. Rennison, B.A., Ardmore.

Manual of Freemasonry. By R. Carlile.

The life and adventures of don Antonio de Trezzanio, 1766, and The history of Colonel Jack, written by the author of Robinson Crusoe, 1765. Bound together.

From J. Gilbart Smyly, Litt.D., F.T.C.D., Librarian.

Philolaos des Pythagoreers Lehren.

Von A. Boeckh.

From John I. Beare, M.A., F.T.C.D.

A phylactery with leather case for attachment to the arm.

From J. E. Green, Parkgate, Cheshire.

Illustrations from 100 MSS. in the possession of Henry Yates Thompson: seventh and last vol.

From H. Y. Thompson, London.

The Ormuri or Bargista language.

By Sir George A. Grierson, K.C.I.E.

From Author.

Libri S. Patricii; a revised text, with translation.

<sup>\*</sup>The privilege was first given in the year 1801 (41 Geo. III. cap. 107). By 5 and 6 Victoria, chapter 45, the right of obtaining a copy of every book printed in the United Kingdom is confined to five Libraries. viz.:—The British Museum; the Bodleian Library; the Public Library at Cambridge; the Library of the Faculty of Advocates at Edinburgh; and the Library of Trinity College.

Catalogue of books in the French language to 1715, remaining in Archbishop Marsh's Library: compiled by Newport J. D. White, D.D.

From Dr. White.

The atomic weights of boron and fluorine. By Edgar F. Smith and W. K. Van Haagen.

From Dr. Smith, Philadelphia.

Éléments des Cristallographie. Par G. Rose: traduit de l'Ailemand par V. Regnault.

From Herbert Ewart, M.A., Belfast.

De optimo reip. statu, deque nova insula Utopia libellus aureus Thomae Mori. Epigrammata Mori & Erasmi. Basileae, 1518. From O. St. G. Gogarty, M.D.

Timehri; journal from British Guiana, vols. 4 and 5, edited by

Hon J. J. Nunan, LL.D.

From Editor.

Le Portugal et le Saint-Siège: II., Les Langes Bénits envoyés par les Papes aux princes royaux de Portugal. Par Le Marquis MacSwiney de Mashanaglass. From Author, Dublin.

A MS. Diary from the year 1876 in 17 volumes with index written by Charles A. Stanuell, M.A.

From Author, Dublin.

A seal of Queen Elizabeth in wax.

From J. V. McAlpine, Dublin.
A copy of the Koran from Swat.

A MS. volume of Pashtu poetry.

A MS. volume of prayers in Arabic.

From General Sir Bindon Blood, G.C.B.
Catalogue of the Greek and Roman antiquities in the possession of
Lord Leconfield.

By the Hon. Margaret Wyndham.

From the Author.

The book of the survey of the attainted and escheated lands in the Countye of Lymerick, in 1586, by Ch. Peyton and others, Commissioners.

Typewritten copy made and presented by Tennyson A.

Groves, B.E.

Gospels of St. Luke and St. John, the Acts of the disciples, unjudaized version, from the Huntington palimpsest: deciphered and translated by E. S. Buchanan, M.A.

From Translator, New York.

The Hundred of Haytor.

From Rev. O. Reichel, M.A., Devon.

The War of Italy.

Papers on the antiquities and folklore of Clare and Limerick.

Report of the Grand Lodge of Masons, 1918.

From T. J. Westropp, M.A.

Ewen Maclachlan, librarian.

From P. S. Anderson, M.A., Aberdeen University Library. Thomas Gordon, the "Independent Whig."

From J. M. Bulloch, London.

Arts and Crafts Society of Ireland. Journal and Exhibition Catalogues.

The Kiltartan poetry book: translated from the Irish by Lady Gregory. Two plays for dancers. By W. B. Yeats. From Miss Yeats, Cuala Press.

James Woodhouse, a pioneer in chemistry, 1770-1809.

By Edgar F. Smith, Provost of the University of Pennsylvania. From Author.

The development of German prize law.

By C. H. Huberich and Richard King.

From R. King, London.

The Cherubim of Glory.

By Rev. W. Bramley-Moore, M.A.

From Author, London. Cellae Trichorae: vol. 2.

By E. H. Freshfield, M.A.

From Author.

Dr. Edward McGlvnn.

By Sylvester L. Malone. From Author, New York.

James Colin MacLehose, 2nd Lieut., Rifle Brigade.

From James MacLehose, Glasgow.

One hundred per cent. American; addresses at the luncheon meetings of the Republican Club, New York, during 1918. From the Club.

World conscience an international society for the creation of a world-centre.

From H. C. Andersen, Rome.

The story of our parish (St. Peter's, Dublin).

By C. M. MacSorley. From the Rector.

The Christian Science Monitor: 47 Nos. dealing with the Irish Convention of 1917-1918.

From M. T. Saunderson.

Open letters on Germany.

By Sir Isidore Spielmann, C.M.G.

From Author.

Trench fever: report of Commission; American Red Cross.

From the Society.

Not by bread alone, and Pensions for Mothers.

From Judge Henry Neil, Chicago. D. Vecchini: Blessure et belle humeur.

From Author, Corsica.

La Scuola Medica da campo di San Giorgio di Nogaro.

From Professor Tusini, Parma. Otitis media.

By Charles J. Heath.

From W. H. Gregory, London.

Caractère indo-européen de la langue Hittite.

Par Carl J. S. Marstrander. From Author, Norway.

Songs from a watch-tower.

By R. H. McCartney.

From Author, Chicago. The battles of Saintes and Mauron, 1351, 2,

From R. Bentley, Slough.

The "Read if thou canst" epitaph at Stratford-upon-Avon. By J. Denham Parsons.

From Author, Chiswick.

Lord Kelvin's early home.

By his sister.

From George and Agnes King.

Die neue Weltsprache: nov Latin logui. Von K. Pompiati.

From Author, Vienna.

Solyman and Almena. Dublin, 1762. From A. Murnaghan, Dublin.

Henry Rosenberg: Memorial volume. From the Committee, Galveston.

1. A short treatise on Canadian Constitutional law.

By A. H. F. Lefroy, with introduction by W. P. M. Kennedy. 2. Documents of the Canadian Constitution, 1759-1915 : selected

by W. P. M. Kennedy.

From Professor Kennedy, Toronto.

Promissory notes for 10s., 5s., 1s, issued by the Limerick Trades and Labour Council in April, 1919.

From J. Cronin, Limerick.

Lumleian lectures on cerebro-spinal fever. By Sir Humphry Rolleston, K.C.B. From Author, London.

Excerpts from an Egyptian MS.

By K. Esryer.

From Author, Chicago.

Aengus, an all poetry journal, No. 1.

From H. O. White, B.A.

The Westby pedigree.

From Dr. G. Westby, Liverpool.

Catalogue of Norse MSS. in Edinburgh, Dublin, and Manchester. By O. Skulerud.

From Author, Christiania.

The number of volumes contained in the Library (including MSS.) was as follows:-

September,	1889,	218,241	September,	1904,		287,248
"	1890,	221,336	"	1905,		293,638
"	1891,	224,586	32	1906,		299,068
22	1892,	228,037	23	1907,		305,248
22	1893,	231,538	33	1908,		311,570
23	1894,	235,093	,,,	1909,		317,214
,,	1895,	238,606	"	1910,		323,423
"	1896,	241,818	,,,	1911,		329,478
"	1897,	244,887	22	1912,		335,187
,,	1898,	251,876	>>	1913,		340,932
,,	1899,	257,323	33	1914,		346,024
,,,	1900,	264,075	,,,	1915,		351,095
25	1901,	269,939	22	1916,		355,156
2.7	1902,	275,110	22	1917,	0	359,010
17	1903,	280,741	,,	1918,		361,113

#### LENDING LIBRARY.

As the Royal Statutes by which the General Library is regulated forbid the removal of any book from its precincts, except for hinding or other special cause, the Provost and Senior Fellows. many years since, established a Lending Library, consisting of books on the general subjects of collegiate study, which it was desirable that Students should be able to read in their own chambers, but which might prove too costly for ordinary purchase. The Lending Library receives constant augmentations of books, either from special donations, or from the proceeds of a grant made from time to time, out of the College funds.

The Lending Library contains an extensive collection of mathematical, classical, and theological books, as well as works connected with civil engineering. Medical Students are privileged to borrow books from the Medical Library of the College of Physicians.

The Lending Library is usually open for the lending and receipt of books, on three days in each week from 1.30 to 2.30 o'clock, P.M., during Term. A large room in the Museum Building is fitted up to receive the books of the Lending Library. Students can be furnished with Catalogues on application to the Clerk in charge of the Library.

# THE LECKY LIBRARY.

In 1912, shortly before her death, Mrs. Lecky presented to Trinity College the Library of her husband, William Edward Hartpole Lecky, a collection of about 6000 volumes.

The Library is placed in the Council Room, and books may be borrowed from it by Fellows, Professors, Lecturers, Assistants to Professors, and by Students specially recommended by the Professor or Lecturer whose class they are attending.

Application is to be made to the Clerk of the Lending Library.

# Astronomical Observatory of Trinity College.

THE Observatory is at Dunsink, five miles from the College. It is the official residence of the Royal Astronomer for Ireland. The principal instruments are a Meridian Circle by Pistor and Martins; a Chronograph by Grubb; a 12-inch refractor by Canchoix, presented by Sir James South, and a 15-inch silvered glass reflector by With, presented by Isaac Roberts, Esq., both of which are mounted equatorially. The Observatory is open from 7.30 to 9 p.m. on the first Saturday of the months September to April, inclusive. Special arrangements are made (through Tutors) in Hilary Term to enable Students to see the instruments, and have their use explained.

Time-Service.—The clock in the Museum Building and two clocks in the office of the Dublin Port and Docks Board are under the direct electrical control of the Mean-time Clock at the Observatory, and by a relay the control is extended to other clocks in Dublin. For the convenience of mariners a time-ball is dropped on week-days on the roof of the Port and Docks Office at one o'clock Greenwich mean time, by electrical arrangement.

Publications.—" Astronomical Observations and Researches made at Dunsink, the Observatory of Trinity College, Dublin" (printed by order of the Board of Trinity College):—

#### PART.

- I. Results of Observations made with the South Refractor. 1870.
- II. Further Researches on the Parallax of Stars, 1873.
- III. Results of Observations made with the South Refractor. 1879.
- IV. Mean Places of 321 Red Stars. 1882.
- V. Observations in search of Stars with an Annual Parallax. 1884.
- VI. Mean Places of 1012 Southern Stars. 1887.
- VII. Mean Places of 717 Stars with large Proper Motions. 1896.
- VIII. Mean Places of 1101 Stars with large Proper Motions. 1899.
  - IX. Mean Places of 321 Stars of reference for Clusters and of Zodiacal Stars, 1900.

# Mormal Climatological Station.

In January, 1904, the Provost and Senior Fellows established a Normal Climatological Station within the precints of Trinity College. The station occupies an open space in the Fellows'

Garden, and is fully equipped.

A "Normal Climatological Station"—or "Second Order Station" of the International Classification—is one at which readings are taken each day at 9 A.M. and at 9 P.M., local time, and which is provided with the following instruments properly verified and exposed:—barometer, dry-bulb, wet-bulb, maximum and minimum thermometers, and rain-gauge. In addition to these instruments, the equipment of the Trinity College Meteorological Observatory includes a Campbell-Stokes sunshine-recorder and two-earth thermometers, of which the bulbs are placed underground at a depth of one foot and of four feet respectively.

The Meteorological Observatory is under the superintendence of Erasmus Smith's Professor of Naturaland Experimental Philosophy, W. E. Thrift, M.A., F.T.C.D. Practical demonstrations of the use of the instruments are given by the Professor or his Assistants to Students of the School of Physic in Ireland, Engineering, and

other Students from time to time during Term.

The observations are taken by an Undergraduate or Graduate in Arts, appointed each year by the Provost and Senior Fellows, on the nomination of Erasmus Smith's Professor of Natural and Experimental Philosophy.

# Buildings of Trinity College.

Or the buildings of the original College of Queen Elizabeth no portion now remains.

A grant was made by the Corporation of Dublin, July 20, 1592. in which the bounds of Trinity College are recited as follows (Thomas Smith, Mayor, George Kennedy and John Myles, Sheriffs)

"Sicut se extendunt in longitudinem a campo vocato Anglice Hoggin Greene ex parte occidentali usque ad terram nuper Monasterii Beatæ Mariæ Virginis juxta Dublin nunc in tennure Johannis Dongan generosi: ex parte orientali et sicut jacet in latitudine a venella quæ ducit ad fontem St. Patricii ex parte australi usque ad terram prædictam nuper Monasterii Beatæ Mariæ Virginis et flumen Anliffey ex boreali parte."

In 1695-6 there were 144 hearths in Trinity College.

#### LIBRARY.

The foundation of the Library was laid May 12, 1712, the Provost and Fellows having obtained a grant of £5000 from Queen Anne, on the address of the Irish House of Commons, for the purpose of building a Library. The building itself was finished in 1724, but some years elapsed before it was prepared for the reception of books. The total cost was about £17,000, of which £15,000 in all was provided by the Parliament. The architect was Thomas Burgh.

The Long Room is 209 feet in length and 40 feet in breadth.

8 feet 4 inches being occupied on either side by the Stalls.

In 1743 Dr. Gilbert bequeathed a sum of £500 to purchase busts for the Long Room. Among the busts first placed in the Library, which were executed by Roubillac, is one of Dean Swift, which was presented to the College, in 1745, by the Senior Sophister Class. The busts of Lord Plunket and M'Cullagh are by Christopher Moore; that of Sir William Hamilton by the late J. H. Foley; that of Provost Humphrey Iloyd is by A. Bruce Joy.

In 1890 it was decided to enlarge the Library by enclosing the

colonnades.

#### PRINTING HOUSE.

The Printing House was built between 1726 and 1734, by Dr. Stearne, Bishop of Clogher and Vice-Chancellor of the University.

#### DINING HALL.

The Dining Hall was erected between 1740 and 1745. It contains a number of portraits, chiefly of Chancellors of the

University.

The portrait of Frederick Prince of Wales, over the entrance, was painted by Hudson, master of Sir Joshua Reynolds, and was presented to Trinity College by George III. Its frame was carved by G. Gibbons, and was originally in Windsor Castle.

#### FRONT OF TRINITY COLLEGE.

The West Front of Trinity College was erected in 1759, the architect being Sir William Chambers, who constructed Somerset House in London. The College received £40,000 from George II. upon the address of the Irish House of Commons, for the purpose of building this Front and the adjoining Parliament Square.

The statues of Goldsmith and of Burke, standing in front of the College, executed by J. H. Foley, were erected by public

subscription in 1864 and 1868.

#### PROVOST'S HOUSE.

The Provost's House was erected in 1760, at a cost of £13,000, by Provost Andrews. It is a fac-simile of a house designed by the Earl of Burlington, and erected for General Wade, in Piccadilly, London.

The Provost's House contains original portraits of Queen Elizabeth and Archbishop Ussher, painted by Zuccheri, and a fine

portrait of the Duke of Bedford, by Gainsborough.

#### PUBLIC THEATRE.

The Public Theatre, usually called the Examination Hall, was opened in 1787. It contains a Monument to Provost Baldwin (who died in 1758), and a number of portraits. Those of Queen Elizabeth and Archbishop Ussher are copies of the original portraits in the Provost's House. That of Bishop Berkeley is copied from a picture in Lambeth Palace. The portrait of Edmund Burke was painted by Hopner.

In the gallery is the case belonging to the organ of the old chapel. This organ was built in Holland for a church in Spain, but was taken from the Spaniards in Vigo Bay, 1702, and repaired and enlarged in 1705. It was presented to the College by

the second Duke of Ormonde.

## CHAPEL OF TRINITY COLLEGE.

The present Chapel is the third which has existed in Trinity College. It was opened in 1798, and cost £22,000. It contains three painted glass windows:—

One, representing the Recapitulation of the Law by Moses and

the Restoration of the Jews, was erected in memory of Richard Graves, D.D., author of "Lectures on the Pentateuch," by his son

and other relatives, in 1865.

The corresponding window on the other side of the Communion Table was erected in 1867, in memory of Bishop Berkeley, by the Right Honourable Robert Richard Warren, Judge of the Court of Probate.

The central window, directly over the Communion Table, was painted in Munich, and was erected in memory of Archbishop Ussher, by Dr. Butcher, late Bishop of Meath, in 1867.

The Chapel which preceded the present was consecrated in 1686. Its dimensions were the same as those of the present structure.

#### CAMPANILE.

The Campanile was erected in 1853, by Lord John George Beresford, Archbishop of Armagh and Chancellor of the University. The Bell, which was cast at Gloucester in 1744, weighs 31 cwt. 12 lbs.; and its clapper 2 cwt. 13 lbs.

#### MUSEUM BUILDING.

This Building was erected by the Provost and Senior Fellows in 1857.

It contains the Museums of Geology, and Mineralogy, and of Engineering Models, the Drawing Room of the Engineering School, the Room of the Lending Library, a Physical Lecture Room, the Lecture Room of the Schools of Divinity and Law, and a number of other Lecture Rooms. It contains also a Clock in electric connexion with the Observatory clock at Dunsink.

#### MEDICAL SCHOOL BUILDINGS.

These comprise three blocks.

In the middle one are :-

I. The Anatomical Department, which includes a large Dissecting Room with electric light; a Bone Room, in which are Sections of the frozen body, and various preparations and models illustrating the Development and the Topography of the Brain; a Lecture Theatre, with a powerful projecting Lantern; the Professors' rooms.

II. The Chemical Science School, including four general Laboratories, as well as special Laboratories for Quantitative and Gas Analysis; a Balance Room; a Chemical Museum, in which are a number of the rarer Chemical substances; a large Lecture Theatre; the Professors' rooms and laboratory.

III. A spacious Pathological Museum (see p. 280), with rooms for the Professor of Surgery.

IV. The Department of Materia Medica and Therapeutics, including a Laboratory, a Museum (see p. 280), and the Professors' rooms

V. Two Lecture Theatres, Professors' rooms, the Office of the Registrar of the School, a Tutorial Class Room and a Students' Luncheon Room.

This part of the block was completed in 1887.

VI. The Museum of Anatomy and Zoology (see p. 280), completed in 1876.

At the north end of the Zoological Museum is the block containing the Department of Institutes of Medicine, which includes a large Laboratory for Histology, a Theatre in which the Lectures in Physiology are given, and the Professors' rooms. This block was finished in 1878; and subsequently enlarged in 1901.

On the south of the middle block is the School of Pathology, which contains a large Laboratory, a Theatre, the Lecturer's room, and a number of work and preparation rooms. In this building also accommodation is at present provided for the Department of Röntgen photography.

This building was completed in 1898.

All the Theatres have their seats numbered consecutively, one being assigned to each Student on entering for the corresponding course of Lectures.

#### SQUARES.

The Front Square, also known as Parliament Square, was erected along with the West Front.

The Library Square contains the oldest buildings in College, some of which were standing in the latter part of the seventeenth century.

The greater part of Botany Bay Square was built about the

year 1816.

The New Square was begun in 1838, and finished in 1844.

#### GRADUATES' MEMORIAL.

The north side of the Library Square, which contained the old houses numbered 28 to 31, was demolished in 1899.

The Graduates' Memorial occupies the centre of the new building which has been erected in the space thus vacated, and contains a theatre, a library, a reading room, recreation rooms, rooms for the use of the College Societies, cloak rooms, &c.

The wings of the new building contain forty sets of single students' chambers, and the entrances are at the east and west

ends.

#### LABORATORY OF EXPERIMENTAL PHYSICS.

The Laboratory of Experimental Physics was completed during the Summer of 1906. It is the gift of Viscount Iveagh; his Lordship contributing a sum of £16,500 for its construction and equipment. The actual cost of building was £14,708; of the fittings £1292; and the balance of nearly £500 has been laid out on Scientific Instruments.

The interior is designed so as to provide special accommodation for Students engaged in research, as well as to meet all the requirements of a large teaching laboratory. Several research rooms, furnished with every convenience in the way of scientific fittings, as well as class rooms for teaching the great divisions of Physical Science, Heat, Light, Electricity and Magnetism, are provided. There are also a large class room for introductory teaching, and a lecture theatre, scating 132, fitted with the latest facilities for demonstration.

The city current is laid on throughout the building, and a continuous current is supplied from a large storage battery in

the basement.

The Architect was Mr. W. C. Marshall of London.

The annual outlay upon the upkeep of this Department is in part defrayed by the Board, and in part derived from a fund contributed by the Graduates and friends of the University during the years 1903-1906 [see Calendar Vol. III.]. From this fund an annual income of £350 is assigned to the Laboratory of Experimental Physics.

#### BOTANICAL LABORATORY.

The New School of Botany was opened at the beginning of Michaelmas Term, 1907. It was built and equipped through the munificence of Viscount Iveagh at a cost of about £7950, and endowed with an income of £280 per annum by public subscription to the Science Fund. The Building contains a Lecture Theatre, a large Laboratory to accommodate practical classes of 60 students, various Class Rooms, and Research Laboratories, and a small Library. The Building is equipped throughout with the various appliances and apparatus required for Botanical Instruction and Research. In 1912, partly by contribution from Viscount Iveagh, and partly by contribution from the Board, a Herbarium was added at a cost of about £800.

# Undergraduate Ordinary Examination Papers.

1918-1919.

# Michaelmas Term, 1918.

# AUTUMN ENTRANCE.

#### OCTOBER.

#### ARITHMETIC.

# MR. W. E. THRIFT.

- 1. Multiply 7.54265 by 43.16, and find, to three places of decimals, the result of dividing the product by .0273.
  - 2. Find the cost of 17 cwt. 3 qrs. 25 lbs. at £3 5s. 6d. a cwt.
- 3. A box, fitted with a lid, is to be made of wood, I inch thick; if its inside measurements are to be 6 feet in length, 2 feet in width, and I foot in depth, find the cost of the wood required at 8d. per sq. foot.
- 4. Find the True Present Worth of a debt of £175 12s. 6d. due in 3 months, if the rate of interest be 6 per cent. per annum.
- 5. If a litre of air weighs 1.293 grams, find the weight in lbs. of the air contained in a room 15 feet long, 12 feet wide, and 10 feet high.
  - [I kilogram = 2.205 lbs., and I metre = 39.37 ins.]
- 6. If goods are sold at £2 14s. 7d. a cwt., a loss of 5 per cent. on the outlay will result. Find the price per lb. at which they should be sold in order that a gain of 8 per cent. may be made.

#### ALGEBRA.

#### MR. H. THRIFT.

1. Simplify

$$\frac{3}{8}\left\{\frac{4}{3}(a-b)-8(b-c)\right\} \ - \ \left[ \ \left(\frac{b-c}{2}-\frac{c-a}{3}\right) + \frac{1}{2}\left(c-a-\frac{2}{3}(a-b)\right)\right] \cdot$$

2. Divide  $a^3 - b^3 + c^3 + 3abc$  by a - b + c.

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3. Add together the fractions

$$\frac{x-5}{x^2+x-6}$$
,  $\frac{x+2}{x^2-3x+2}$ ,  $\frac{1-2x}{x^2+2x-3}$ .

4. Find the H.C.F. of

$$2x^3 + x^2 - 11x - 10$$
 and  $6x^3 - 17x^2 + 13x - 20$ .

5. Solve the equation

$$\frac{2}{3}(3x-1)-\frac{2x-7}{6}=\frac{7x}{4}+\frac{1}{6}.$$

- 6. Solve the equations 3x + 4y = 7, 5x + 7y = 13.
- 7. Find two numbers, of which the sum is 77, such that the first divided by the second gives 2 as quotient and 5 as remainder.

#### HISTORY AND GROGRAPHY.

#### MR. JOHNSTON.

[Answer question seven and any four of the remaining questions.]

- 1. Write a succinct account of the reign of Henry II.
- 2. Describe the Lollard movement, and estimate its significance.
- 3. Sketch the character of Henry VII. What is the importance of his reign in English history?
- 4. What were the points at issue between Charles I and his Parliaments?
- 5. Show your acquaintance with the Declaration of Rights. In what, at the present time, does the liberty of the subject essentially consist?
- 6. What was the commercial policy of England in the eighteenth century with regard to (a) the Colonies, (b) Ireland?
- 7. What improvements in marine harbours and in internal communications by road, rail, and water would you recommend for the more complete economic development of Ireland?
- 8. What were the objects of Germany's policy in the Near East? Illustrate your answer by a sketch-map.
- 9. Where are Quetta, Batavia, Saigon, Nanking, Kyoto, the District of Columbia, Killary Bay, Lichfield, Alexandretta, and Prague?

## LATIN COMPOSITION AND UNPRESCRIBED TRANSLATION.

#### DR. GOLIGHER.

- I. Translate into Latin :-
- (a) To become rich you need energy and perseverance.
- (b) Let none of us think that the enemy should be believed.

- (c) The consul asked Marcus whether he would obey the law or go into exile.
  - (d) I fear that you will not be able to answer that question correctly.
- (e) The soldier sent two thousand sesterces to his father on the 4th of October.
  - 2. Translate into English:-

Erat inter oppidum Ilerdam et proximum collem, ubi castra Petreius atque Afranius habebant, planities circiter passuum CCC, atque in hoc fere medio spatio tumulus erat paulo editior; quem si occupavisset Caesar et communivisset, ab oppido et ponte et commeatu omni quem in oppidum contulerant se interclusurum adversarios confidebat. Hoc sperans legiones tres ex castris educit acieque in locis idoneis instructa unius legionis antesignanos procurrere atque cum tumulum occupare inbet. Qua re cognita celeriter quae in statione pro castris erant Afrani cohortes breviore itinere ad eundem occupandum locum mittuntur.— CAESAR.

#### FRENCH AND GERMAN.

#### PROFESSOR RUDMOSE-BROWN.

#### FRENCH.

## I. Translate into English :-

La crainte de rencontrer madame de Solange l'avait empêchée quelque temps de retourner vers son père; son inquiétude l'emporta enfin sur tout le reste, elle se glissa jusqu'à la porte du marquis, et, après s'être assurée qu'elle était seule, entra furtivement.

Celui-ci parcourait la chambre avec agitation. A la vue de Jeanne,

il s'arrêta court et lui tendit les bras.

— La lettre! la lettre! balbutia-t-il.

- Ma mère l'a lue? demanda Jeanne tremblante.

- Et emportée!

La Jeune fille poussa un cri.

— Ce n'est point ma faute, Jeanne, reprit le vieillard en étendant les mains; . . . elle avait promis de la rendre. Oh! Jeanne! Jeanne! tu ne m'en veux pas?

Celle-ci s'était laissée tomber sur un fauteuil en se couvrant le

visage.

# 2. Translate into French:-

She had opened the door of her father's room and gone in. He had been walking up and down the room. But when he saw his daughter he had stopped. She had asked him if her mother had read the letter. He had replied that she had taken it away. 'Do not be angry with me,' he had said. But she had covered her face and had begun to weep.

GERMAN.

# 1. Translate into English: -

Er hatte die ganze Zeit über auf einem Holzblock gesessen und das Spiel der beiden mit missgünstigen Blicken verfolgt. Im nächsten Augenblick hatten sich die Buben beim Kragen und prügelten einander wütend durch, während Fridolina in bitteres Weinen ausbrach.

Da erschien die derbe Gestalt der Müllerin auf der Schwelle des hauses. Als sie hörte, um was es sich handelte, lachte sie laut auf und rief mit einer Stimme, die wie eine Trompete gellte: "Freilich, freilich, mein Mädchen nimmt einmal einen Bettelbuben!"

## 2. Translate into German :-

The two boys were playing. The third was sitting on a block of wood. Soon they were all fighting. At this moment the miller's wife appeared. She stood on the threshold, and asked what it was all about. Then, laughing, she took the boys by the collar, and gave them a good beating. 'I won't have beggar boys here,' she had said.

#### \* ENGLISH COMPOSITION.

#### MR. ALTON.

# [Choose one subject.]

- I. The detective story.
- 2. Schooldays and school friends.
- 3. Romance in life and in literature.
- 4. Jerusalem.
- 5. Winter.

# ENTRANCE EXAMINATION. NOVEMBER.

#### ARITHMETIC.

#### MR. H. THRIFT.

- 1. Multiply 26:432 by 15:67, and divide the product by '083, obtaining your result correct to two places of decimals.
- 2. Find the value of .525 of £1 + .232 of £1 2s. 6d. + .288 of £1 8s. 9d.
- 3. Find by Practice the cost of 33 cwt., 3 qrs., 7 lbs., at £6 7s. 8d. per cwt.

- 4. 1000 men have provisions for 85 days. After 17 days 150 of the men go away: find how long the remaining provisions will serve the number left.
- 5. Find to the nearest kilogramme the weight of an iron rod of square section, 10 metres long and 2.3 centimetres broad. A cubic centimetre of iron weighs 7.207 grammes.
- 6. A man holds £1000 Stock of  $2\frac{1}{2}$  per cent. Consols, which he sells out at  $59\frac{1}{2}$ , and invests the proceeds in 5 per cent. War Loan at  $95\frac{1}{4}$ . Find the change in his income.

#### ALGEBRA.

#### MR. HENRY.

- 1. Divide  $a(b^2-c^2)+b(c^2-a^2)+c(a^2-b^2)$  by b-c.
- 2. Find the simplest value of

$$\frac{\frac{1}{x} + \frac{1}{y}}{\frac{1}{x} - \frac{1}{y}} \div \frac{\frac{1}{x^3} + \frac{1}{y^3}}{\frac{1}{x^2} - \frac{1}{y^2}}.$$

3. Solve the equation

$$\left(1 - \frac{1}{x}\right)\left(1 + 2x\right) = \left(x + 1\right)\left(3 - \frac{1}{x}\right).$$

- 4. The sum of nine consecutive whole numbers is 297. Find the numbers.
- 5. Show how negative numbers arise in algebra, and give an example of the practical value of employing such numbers.

## HISTORY AND GEOGRAPHY.

#### MR. LUCE.

- 1. Mention the chief lakes in America and Africa.
- 2. Draw a map to illustrate the river and canal systems of Belgium and Northern France.
  - 3. Name the most important British island possessions.
- 4. Where are the following:—Belgrade, Beirut, Grahamstown, Quetta, Westport, Poole?
  - 5. Trace the gradual extension of the Parliamentary Franchise.
  - 6. Write a note on Queen Elizabeth's foreign policy.

- 7. Give with dates a short account of the following: —the Statute of Praemunire; the Provisions of Oxford; the French Directory; the Darien Scheme.
- 8. Give a brief military history of one of the following:—Marlborough's Campaigns; the Peninsular War; the 1914 Autumn Campaign on the Western Front, up to and including the First Battle of Ypres.

## LATIN COMPOSITION AND UNPRESCRIBED TRANSLATION.

## DR. GOLIGHER.

- I. Translate into Latin :-
- (a) The soldiers said that they would not obey the general's commands.
- (b) Marcus begged his son to depart to Capua on the 29th of October.
- (c) The enemy retreated as quickly as possible, to avoid capture.
- (d) He is so far from agreeing with the consul, that he actually proposed to put him to death.
- (e) You do not believe, do you, that Cicero's speeches are easy to read?
  - 2. Translate into English :-

Eodem die equitum magnam partem flumen traiecit. Qui inopinantes pabulatores et sine ullo dissipatos timore aggressi magnum numerum iumentorum atque hominum intercipiunt, cohortibusque subsidio missis scienter in duas partes sese distribuunt, alii ut praedae praesidio sint, alii ut venientibus resistant atque eos propellant, unamque cohortem, quae temere ante ceteras extra aciem procurrerat, seclusam ab reliquis circum veniunt atque interficiunt incolumesque cum magna praeda ecdem ponte in castra revertuntur.—Caesar.

#### FRENCH AND GERMAN.

#### PROFESSOR RUDMOSE-BROWN.

# 1. Translate into English: -

Either-

Il ne doutait pas qu'en suivant cette espèce de fente creusée dans la montagne on n'arrivât plus facilement et plus rapidement à la plaine. Pierre fut du même avis, et, dès qu'ils furent rassasiés, les trappeurs

prirent le chemin de la vallée découverte par le Kansas.

Ils y campèrent le soir même, et continuèrent à la descendre le lendemain. Soko, à qui l'on avait de nouveau confié le meilleur cheval et le meilleur fusil, reparut le soir avec deux moutons qui fournirent au souper du camp. Il continua de même les jours suivants, suffisant seul à pourvoir la caravane sans retarder sa marche. Enfin, le dixième jour, ils aperçurent la plaine.

Or-

Gegen Abend langte er auf dem Gute an; er gab sein Pferd vor dem Hause einem Diener, fragte nach seinem Herrn und wurde in den Garten gewiesen. Dort erkannte er schon von weitem die Gestalt und Stimme seines Freundes. Er schien in diesem Augenblick mit einem alten Mann, der an einem Baum mit Graben beschäftigt war, hestig zu streiten. Der Baron aber pfiff ein Liedchen, wandte sich um, und vor ihm stand ein Mensch, der ihn freundlich anlächelte und ihm die Hand entgegen streckte. Ersah ihn verwundert an. "Was sieht zu Dienst?" fragte er kurz und schnell.

"Kennst Du mich nicht mehr, Faldner?" erwiderte der Fremde. "Solltest Du bei Deiner Baumschule London und Paris so ganz

vergessen haben?"

", Ists möglich, mein Fröben!" rief jener und eilte, den Freund zu umarmen. ", Aber, mein Gott, wie hast du Dich verändert, Du bist so bleich und mager.

## 2. Translate into French or German :-

He turned round and saw a man who seemed to be laughing. 'What are you doing?' he asked him. 'Why are you laughing?'—'I am laughing because I have come home and you do not know me,' the other retorted. 'Who are you?' 'I am your brother.' 'Why, my brother left the house fifty years ago. You are a young man. You are not fifty years old.' 'Yes, I am. I look young, because I am rich and happy and always have enough to eat.' He did not believe him, but he pretended to do so.

#### ENGLISH COMPOSITION.

MR. ALTON.

[Choose one subject.]

- r. My favourite novel.
- 2. Cheerfulness.
- 3. Cinema theatres.
- 4. Hobbies and pastimes.

# JUNIOR FRESHMEN.

#### GEOMETRY.

#### MR. FRASER.

- 1. Prove that areas of parallelograms on the same base and between the same parallels are equal.
- 2. If a straight line be divided into any two parts, the sum of the squares on the whole line and one part is equal to twice the rectangle contained by the whole and that part, together with the square of the other part.
  - 3. Prove that angles in the same segment of a circle are equal.
- (a) Point out how Euclid deduces the general from the particular case.
- 4. If from a point O without a circle there be drawn two straight lines, OP, OT, if OP cuts the circle in P and Q, T is on the circle and  $OP \cdot OQ = OT^2$ , prove that the line OT touches the circle at T.
- 5. Prove that if two triangles are equiangular their sides are proportional.
- 6. Prove that the simple ratio of the areas of two squares is equal to the duplicate ratio of their sides.
- 7. Prove that the straight line which bisects an angle of a triangle divides the opposite side into segments which have the same ratio to one another as the adjacent sides of the triangle have.
  - 8. Show how to circumscribe a circle about a triangle.
  - 9. Draw a straight line  $\frac{2}{\sqrt{5}}$  inches long.
- 71. The lengths of the sides of two equilateral triangles are 4 and 71 centimetres long. Find the length of the side of an equilateral triangle whose area is equal to the sum of the areas of the two given triangles.

#### ALGEBRA AND ARITHMETIC.

MR. ROGERS.

1. Solve the equation

$$\frac{x+a}{x+b} = \frac{x+c}{x+d}.$$

2. Find to two decimal places the roots of the equation

$$3x^2 - 5x - 6 = 0.$$

Verify by finding the sum of the roots.

3. Find x, y, z from the equations

$$3x - 2y - z + 10 = 0,$$
  

$$2x - y + \frac{z}{3} + 3 = 0,$$
  

$$\frac{x}{2} + y + \frac{z}{2} = 3.$$

- 4. If 12 lbs. of butter cost 1s. more than 24 lbs. of margarine, and 8 lbs. of margarine cost 1s. 6d, more than 3 lbs. of butter, find the price of 1 lb. of butter, and of 1 lb. of margarine.
  - 5. Solve the equations

$$x^{2} + y^{2} = 2xy + 9,$$

$$x + y = 13.$$
6. If 
$$f = 2\sqrt{d(2r - d)},$$

find to two decimal places the value of d when f = 3, r = 2.

- 7. Find a number consisting of two digits such that the number added to the sum of its digits is 50, and the number added to the difference of its digits is 44.
  - 8. Find the value of

to four decimal places.

- A debt of £100 is to be paid in two equal yearly instalments.
   Find the amount of each, the first being paid a year hence, the rate of interest being 4 per cent. compound.
- 10. Given 1 metre = 39.37 ins., 1 cubic ft. = 6.24 galls., find the number of cubic centimetres in a gallon to the nearest integer.

#### TRIGONOMETRY.

#### MR. WEBB.

1. ABC is an equilateral triangle whose sides are 2 yards long. D is in AB and one mile away from the middle point AB.

Calculate the number of seconds in the angle BDC.

- 2. Given  $\tan \theta = a$ , write down, in terms of a, the value or values of the other five trigonometrical functions of  $\theta$ .
  - 3. Sin  $A = \frac{16}{65}$  tan  $B = \frac{5}{12}$  and A and B are each less than 180°.

Find the value or values of  $\cos (A - B)$ .

- 4. In a triangle ABC, A is  $30^\circ$ , B is  $45^\circ$ , and the perpendicular CM from C on AB is 10 inches. Find the length of AB to the nearest tenth of an inch.
- 5. Prove that the sides of a triangle are proportional to the sines of the opposite angles. Show how to solve a triangle given two angles and one side.

- 6. Express cos (90 + C), tan (180 + C), sec (720 C), cot (270 C) in terms of functions of C.
- 7. Out of four sticks 2, 7, 8, 9, inches long you can make three triangles, the short stick, with another, making up one side.

Find out which of these triangles has the biggest area.

- 8. Express  $\sin P + \sin Q$  as a product of two trigonometrical functions. Do the same for  $\cos X \cos Y$ .
  - 9. In a plane triangle find log a given

$$A = 65^{\circ} 54'$$
,  $B = 49^{\circ} 36'$ ,  $C = 187.3$ ,  $\log 1.873 = .2725$ ,  $\log \sin A = 9.9604$ ,  $\log \sin (64^{\circ} 30') = 9.9555$ .

10. If  $a = \left(\frac{x}{y}\right)^z$  find z in terms of the logarithms of a, x, and y.

#### GREEK.

#### MR. ALTON.

Translate:-

- εὶ γάρ τις ἀφικόμενος εἰς "Αιδου, ἀπαλλαγεὶς τούτων τῶν φασκόντων δικαστῶν εἶναι, εὐρήσει τοὺς ὡς ἀληθῶς δικαστὰς, οἴπερ καὶ λέγονται ἐκεῖ δικάζειν, Μίνως τε καὶ Ῥαδάμανθυς καὶ Αἰακὸς καὶ Τριπτόλεμος, καὶ ἄλλοι, ὅσοι τῶν ἡμιθέων δίκαιοι ἐγένοντο ἐν τῷ ἐαυτῶν βίω, ἀρα φαύλη ὰν εἴη ἡ ἀποδημία; ἡ αὐ 'Ορφεῖ ξυγγενέσθαι καὶ Μουσαίω καὶ 'Ησιόδω καὶ 'Ομήρω ἐπὶ πόσω ἄν τις δέξαιτ' ἄν ὑμῶν; ἐγὼ μὲν γὰρ πολλάκις ἐθέλω τεθνάναι, εἰ ταῦτ' ἐστὶν ὰληθῆ' ἐπεὶ ἔμοιγε καὶ αὐτῷ θαυμαστὴ ὰν εἴη ἡ διατριβὴ αὐτόθι, ὁπότε ἐντύχοιμι Παλαμήδει καὶ Αἴαντι τῷ Τελαμῶνος καὶ εἴ τις ἄλλος τῶν παλαιῶν διὰ κρίσιν ἄδικον τέθνηκεν ἀντιπαραβάλλοντι τὰ ἐμαυτοῦ πάθη πρὸς τὰ ἐκείνων, ὡς ἐγὼ οἶμαι, οὐκ ὰν ἀρὸςς εἵη.
  - 1. Parse ἀφικόμενος, ἀπαλλαγείς, εύρήσει, τεθνάναι, ἐντύχοιμι.
  - 2. Who were Triptolemus, Hesiod, and Palamedes?
  - 3. What claims to inspiration did Socrates make?

#### LATIN.

#### MR. KENNEDY.

[Candidates should attempt either the Unprescribed Passage or the Latin Composition, but not both.]

# Unprescribed Passage.

#### Translate:-

Hue ut perventum est, cum propter actatem pedibus iam non valeret vehiculoque portaretur, magni concursus sunt facti, cum alii, reminiscentes veteris famae, actatis miscererentur, plurimi vero ira exacuerentur propter proditionis suspicionem Piraci maximeque quod adversus populi commoda in senectute steterat. Quare ne perorandi

quidem ei data est facultas et dicendi causam. Inde iudicio, legitimis quibusdam confectis, damnatus traditus est undecimviris, quibus ad supplicium more Atheniensium publice damnati tradi solent. Hic cum ad mortem duceretur, obvius et fuit Euphiletus, quo familiariter fuerat usus. Is cum lacrimans dixisset 'o quam indigna perpeteris, Phocion!' huic ille 'at non inopinata' inquit: 'hunc enim exitum plerique clari viri habuerunt Athenienses.'

# For Latin Composition.

Translate into Latin :-

The Romans pursued him, and he found himself compelled to give them battle on the right bank of the Metaurus. On this occasion Hasdrubal displayed all the qualities of a consummate general; but his forces were greatly inferior to those of the enemy, and his Gallic auxiliaries were of little service. The gallant resistance of the Spanish and Ligurian troops is attested by the heavy loss of the Romans; but all was of no avail, and, seeing the battle irretrievably lost, he rushed into the midst of the enemy and fell, sword in hand, in a manner worthy of the son of Hamilear and the brother of Hannibal. The Consul Nero hastened back to Apulia almost as speedily as he had come, and announced to Hannibal the defeat and death of his brother, by throwing into his camp the severed head of Hasdrubal. 'I recognize,' said Hannibal, sadly, 'the doom of Carthage.'

#### Translate:-

Hannibal Sagunto capto Carthaginem Novam in hiberna concesserat. ibique auditis, quae Romae quaeque Carthagine acta decretaque forent. seque non ducem solum, sed etiam causam esse belli, partitis divenditisque reliquiis praedae nihil ultra differendum ratus, Hispani generis milites convocat. 'Credo ego vos,' inquit, 'socii, et ipsos cernere, pacatis omnibus Hispaniae populis, aut finiendam nobis militiam exercitusque dimittendos esse aut in alias terras transferendum bellum; ita enim hae gentes non pacis solum, sed etiam victoriae bonis florebunt, si ex aliis gentibus praedam et gloriam quaeremus. Itaque quum longingua a domo instet militia incertumque sit, quando domos vestras. et quae cuique ibi cara sunt, visuri sitis, si quis vestrum suos invisere vult, commeatum do. Primo vere edico adsitis, ut dis bene iuvantibus bellum ingentis gloriae praedaeque futurum incipiamus.' Omnibus fere visendi domos oblata ultro potestas grata erat, et iam desiderantibus suos et longius in futurum providentibus desiderium. Per totum tempus hiemis quies inter labores aut iam exhaustos aut mox exhauriendos renovavit corpora animosque ad omnia de integro patienda; vere primo ad edictum convenere.-LIVY XXI.

- 1. Parso concesserat, partitis, ratus, cernere, quaeremus, instet, convenere.
  - 2. Show by words or a map the route of Hannibal to Italy.

#### FRENCH.

#### PROFESSOR RUDMOSE-BROWN.

# I. Translate into English :-

'J'entrai dans le vestibule; alors, m'ayant regardé, elle me dit:

— Vous auriez bien besoin de changer, et vous n'êtes pas riche, à ce que je vois . . . Mais suivez-moi dans la cuisine, vous boirez un bon coup, vous mangerez un morceau pour l'amour de Dieu; je tâcherai de vous trouver une vieille chemise, et ensuite vous aurez un bon lit.

'Ainsi parla cette excellente créature, que je remerciai du fond de

l'âme.

'Une fois assis au coin de l'âtre, je soupai comme un véritable loup; Katel levait les mains au ciel en me regardant tout émerveillée. Quand j'eus fini, elle me conduisit dans une chambre de domestique, où, m'étant déshabillé, je ne tardai point à m'endormir.'

## 2. Translate into French :-

He went into the house. The old woman looked at him. Then she said that he was to follow her into the kitchen. She made him eat and drink. She said that she would try to find an old shirt for him. As soon as he had finished, he went to bed. He thanked her. He had eaten an excellent supper, and he was not long in going to sleep. He slept well till the next morning.

#### ENGLISH COMPOSITION.

#### MR. R. M. GWYNN.

Write an essay on one of the following subjects:-

- 1. The opinions of Sir Roger de Coverley.
- 2. Sir Roger as a Justice of the Peace.
- 3. The household of Olivia.
- 4. The adventures of Viola.

# SPECIAL PRELIMINARY EXAMINATION FOR MEDICAL STUDENTS.

#### ALGEBRA AND ARITHMETIC.

MR. W. E. THRIFT.

I. Reduce to a fraction in its lowest terms

$$\frac{x^4 - 2x^2 + 7x - 12}{x^4 - 2x^3 + x^2 - 9}$$

2. Find what value of x makes

$$\frac{3x - \frac{2}{5}}{7} - \frac{2x - \frac{3}{4}}{6} - \frac{2x + \frac{1}{2}}{20}$$

equal to zero, and prove that it does so.

3. Write each of the following expressions as the difference of two squares, and hence factorize them:—

(a) 
$$x^2 + 3x - \frac{7}{4}$$
.

(b) 
$$x^4 + x^2 + 1$$
.

(c) 
$$a^2 - b^2 + 2bc - c^2$$
,

4. Solve the equation

$$\frac{2x-1}{2x-3} + \frac{2x+1}{x-3} = \frac{3x-13}{x+3}.$$

5 Explain the meaning of  $a^p$ , where p is (a) a positive integer, (b) a negative integer, (c) a fraction.

Find its value when p is zero.

- 6. A horse and car cost £75. By selling the horse at a gain of 4 per cent., and the car at a gain of 16 per cent., a gain of 12\frac{4}{5} per cent. on the whole is made. Find the cost of the horse.
  - 7. Find, correct to three places of decimals, the value of

$$\frac{\sqrt{7}}{\sqrt{5-\sqrt{3}}}$$

- 8. Find the sum to which £625 will amount in 3 years at 6 per cent. per annum compound interest.
- 9. Find the true discount on a bill of £126 10s, drawn on 10th September at 3 months, and discounted on 1st October at 6 per cent. per annum.
- 10. A metre contains 39.37 inches, and a kilogramme is equal to 2.2 lbs: find the number of gallons in a cubic foot, if a gallon of water weighs 10 lbs.

GROMETRY.

MR. WEBB.

#### Practical.

- 1. On a line which is 2 units long construct a rectangle equal in area to a triangle whose sides are 3, 5, 6 units long.
- 2. A plan is made on the scale of  $3\frac{1}{2}$  inches to the yard. Draw a scale subdivided as far as to show quarter-feet.
- 3. Make an equilateral triangle three times the area of one whose sides are 2 inches.

#### Theoretical

- 4. Prove that the complements of parallelograms described about the diagonal of a parallelogram are equal in area.
- 5. ABC is a triangle, M is the foot of the perpendicular from A on BC. Prove the proposition which enables you to calculate MC when you know the lengths of the three sides.
- 6. Show that of the lines drawn from an external point to a circle, the least and greatest pass through the centre, and that the order of magnitude of the rest depends on their inclination to these two.
- 7. ABCD is a quadrilateral whose opposite angles are equal to two right angles. Prove that the circle round ABC passes through D.
- 8. Prove Euclid VI, Prop. I, by Euclid's method, or prove clearly that the numerical value of the area of a triangle can be obtained by multiplying the numerical values of its altitude and half-base.
- 9. Prove that if AB:BC::DE:EF and AB:AC::DE:DF, then  $\angle BAC = \angle EDF$ .
- 10. Similar figures are described on the three sides of a right-angled triangle. Prove that one is equal in area to the other two.

#### MR. TATE.

[All candidates must attempt either the Unprescribed Passage or the Composition.]

[A.]

Unprescribed Passage.

Translate:-

Iamque cibo vinoque graves somnoque iacebant, Securumque quies alta per Argos erat: Circum me gemitus morientum audire videbar— Et tamen audieram, quodque verebar, erat. Sanguis abit, mentemque calor corpusque relinquit, Inque novo iacui frigida facta toro. Ut leni zephyro graciles vibrantur aristae. Frigida populeas ut quatit aura comas. Aut sie, aut etiam tremui magis. Ipse iacebas. Quaeque tibi dederam vina, soporis erant.

# Latin Composition.

The Delphians then, when they perceived in how great peril they were involved, were seized with the utmost terror. And so they go to the oracle, to inquire respecting the sacred treasure, whether to bury it in the earth, or to carry it away to another land would be better. To them consulting the god answered, that they were to leave the treasure untouched, that he could guard his own things without aid from others. They therefore, this answer having been received, proceeded to provide for their own safety.

[B.]

#### Translate:-

Martiis caelebs quid agam Kalendis, Quid velint flores et acerra thuris Plena, miraris, positusque carbo in Caespite vivo.

> Docte sermones utriusque linguae? Voveram dulces epulas et album Libero caprum prope funeratus Arboris ictu.

Hic dies anno redeunte festus Corticem adstrictum pice dimovebit Amphorae fumum bibere institutae Consule Tullo.

HORACE.

- (b) Parse-caespite, sermones, voveram, redeunte, pice.
- (c) Name the metre of this ode, and give the scheme of that metre. Or,

Translate:-

- (a) Ipse Hannibal, qua turris mobilis omnia munimenta urbis superans altitudine agebatur, hortator aderat. Quae cum admota catapultis ballistisque per omnia tabulata dispositis muros defensoribus nudasset, tum Hannibal occasionem ratus quingentos ferme Afros cum dolabris ad subruendum ab imo murum mittit. Nec erat difficile opus, quod caementa non calce durata erant, sed interlita luto structurae antiquae genere. Itaque latius, quam qua caederetur, ruebat, perque patentia ruinis agmina armatorum in urbem vadebant. Locum quoque editum capiunt, conlatisque eo catapultis ballistisque, ut castellum in ipsa urbe velut arcem inminentem haberent, muro circumdant; et Saguntini murum interiorem ab nondum capta parte urbis ducunt.-Livy.
  - (b) Parse-nudasset, ratus, interlita, editum, conlatis.
- (c) Give the meaning of-adpendices, conquisitores, actuariae naves, adminiculum, pulvinarium.

[c.]

#### Translate: -

- (π) ἐνταῦθα δὴ κατά τε τοῦ Τισσαφέρνους ἔλεγον ἃ πεποιηκὼς εἴη, αὐτοῦ τε Κύρου ἐδέοντο ὡς προθυμοτάτου πρὸς τὸν πόλεμον γενέσθαι. Κῦρος δὲ τόν τε πατέρα ἔφη ταῦτα ἐπεσταλκέναι καὶ αὐτὸς οὐκ ἀλλ ἐγνωκέναι, ἀλλὰ πάντα ποιήσειν' ἔχων δὲ ἡκειν τάλαντα πεντακόσια' ἐὰν δὲ ταῦτα ἐκλίπῃ, τοῖς ἱδίοις χρήσεσθαι ἔφη, ἃ ὁ πατὴρ αὐτῷ ἔδωκεν' ἐὰν δὲ καὶ ταῦτα, καὶ τὸν θρόνον κατακόψειν, ἐφ' οῦ ἐκάθητο, ὅντα ἀργυροῦν καὶ χρυσοῦν. οἱ δὲ ταῦτ' ἐπήνουν καὶ ἐκέλευον αὐτὸν τάξαι τῷ ναὐτῃ δραχμὴν 'Αττικήν, διδάσκοντες ὅτι ὰν οῦτος ὁ μισθος γένηται, οἱ τῶν 'Αθηναίων ναῦται ἀπολείψουσι τὰς ναῦς καὶ μείω χρήματα ἀναλώσει. ὁ δὲ καλῶς μὲν ἔφη αὐτοὺς λέγειν, οὐ δυνατὸν δ' εἶναι παρ' ἃ βασιλεὸς ἐπέστειλεν αὐτῷ ἄλλα ποιεῖν.—ΧεκοΡΗΟΝ.
  - (b) Parse-πεποιηκώς, ἐπεσταλκέναι, ἐκλίπη, ἔδωκεν, ἐκάθητο, τάξαι.
  - (c) What would πεποιηκώς είη be in Oratio Recta?

Or.

# Translate:-

- (a) Μεγάλα δ' ἔγωγε ὑμῖν τεκμήρια παρέξομαι τοὐτων, οὐ λόγους, ἀλλ' δ ὑμεῖς τιμᾶτε, ἔργα. ἀκοὐσατε δή μου τὰ ἐμοὶ ξυμβεβηκότα, ἵνα εἰδῆτε ὅτι οὐδ' ὰν ἐνὶ ὑπεικάθοιμι παρὰ τὸ δίκαιον δείσας θάνατον, μὴ ὑπείκων δέ ἄμα καὶ ἄμα ὰν ἀπολοίμην. ἐρῶ δὲ ὑμῖν φορτικὰ μὲν καὶ διακικά, ἀληθῆ δέ. ἐγὰ γάρ, δ' Ἀθηναῖοι, ἄλλην μὲν ἀρχὴν οὐδεμίαν πόποτε ἦρξα ἐν τῆ πόλει, ἐβούλευσα δέ' καὶ ἔτυχεν ἡμῶν ἡ φυλὴ 'Αντιοχὶς πρυτανεύουσα, ὅτε ὑμεῖς τοὺς δέκα στρατηγοὺς τοὺς οὐκ ἀνελομένους τοὺς ἐκ τῆς ναυμαχίας ἐβούλεσθε ἀθρόους κρίνειν, παρανόμως, ὡς ἐν τῷ ὑστερῳ χρόνῳ πῶτιν ὑμῖν ἔδοξε. τότ' ἐγὰ μόνος τῶν πρυτάνεων ἡναντιώθην μηδὲν ποιεῖν παρὰ τοὺς νόμους καὶ ἐναντία ἐψηφισάμην.—Ρίλατο.
  - (b) Parse-ξυμβεβηκότα, είδητε, ἀπολοίμην, ἔτυχεν, ἔδοξε.
  - (c) Explain έβούλευσα and πρυτανεύουσα.

#### FRENCH.

#### PROFESSOR RUDMOSE-BROWN.

# 1. Translate into English :-

— Mon histoire? elle est fort simple. J'ai été attaqué et dépouillé par des brigands qui m'ont attaché à cet arbre, et je demande d'être délivré promptement.

- Ah! voilà l'affaire. Des brigands?

— Oui, des brigands. Je passais la montagne avec un mulet qui portait ma valise. Ils m'ont volé et le mulet et la valise. . . .

— Voila l'affaire! répéta-t-il au lieu de me faire délier. C'est que cela va coûter beaucoup en écriture. . . .

— Déliez-moi toujours, misérable! Que voulez-vous donc que je fasse de vos écritures?

- C'est qu'il faudra verbaliser.

- Vous ne verbaliserez pas. Déliez-moi toujours.

- Pas possible. Je serais en faute. Verbaliser d'abord, et puis vous délier après. Je vais vous quérir des témoins. Il faut que j'en aie deux à même de signer leur nom.
  - 2. Translate into French :-

He had been attacked and robbed by brigands who had tied him to a tree and stolen his mule. He asked the policeman to untie him. But the policeman refused, saying that, first, he would have to draw up a report, and have it witnessed (use certifier) by two citizens. 'Must I wait till they come?' he had asked. 'Yes,' the policeman had replied, 'I cannot free you before they come.' So he had to remain tied to the tree. The policeman sent for two witnesses. He said that it would cost a lot, and that it would be difficult to find witnesses who could write.

ENGLISH COMPOSITION.

MR. R. M. GWYNN.

Write an essay on one of the following:

America and the War.

Irish railways.

Sport as a preparation for war.

Harvest.

# FINAL FRESHMAN EXAMINATION AND SENIOR FRESH-MEN SUPPLEMENTING HILARY AND TRINITY EXAMINATIONS.

# MICHAELMAS TERM, 1918.

ALGEBRA AND ARITHMETIC.

MR. W. E. THRIFT.

1. Multiply

$$x^{\frac{3}{2}} - x + x^{-1} - x^{-\frac{3}{2}}$$
 by  $x^{\frac{3}{2}} + x - x^{-1} - x^{-\frac{3}{2}}$ .

2. Find the Highest Common Factor of

$$x^4 - 6x^2 + 16x - 15$$
 and  $x^4 - 6x^3 + 5x^2 - 18$ .

3. Solve the equation

$$\frac{1}{7} (4x + 7) - \frac{6}{11} (3x - 3) = \frac{1}{2} \left( 2x + 1\frac{1}{7} \right).$$

4. Solve the equation

$$\frac{x}{x+1} + \frac{x+1}{x+2} + \frac{x+2}{x+3} = 3.$$

- 5. If the difference of the cubes of two consecutive numbers is 397, find the numbers.
- 6. Three men, A, B, and C, can do a piece of work in 10 days B and C would take 15 days to do it, while A and B would take 13 $\frac{1}{3}$  days to do it. Find how long each of them would take to do it.
  - 7. Express

$$\frac{1}{1-\sqrt{2}+\sqrt{3}}$$

as a fraction with a rational denominator, and find its value to three decimal places.

- 8. The difference between the Simple and the Compound Interest on a sum of money for 3 years at 5 per cent. per annum is £7 12s. 6d.; find the sum of money.
  - 9. Find the rent of 7 acres, 3 roods, 33 perches, at £3 16s. 8d. per acre.
- 10. A tradesman's assets amount to £325 7s. 8d., whilst he owes three creditors £157 2s. 6d., £366 12s. 6d., and £209 10s. respectively. What amount should each creditor receive?

#### TRIGONOMETRY.

#### MR. H. THRIFT.

- 1. Show that the angle subtended at the centre of a circle by an arc equal to the radius is an invariable angle. If  $\pi = 3.14159$ , calculate the number of seconds in this angle.
  - 2. Find all the trigonometrical ratios of  $\theta$  if

$$\csc\theta = \frac{2\sqrt{2}}{\sqrt{3}-1}.$$

- 3. If  $\tan A = \frac{9}{40}$ ,  $\tan B = \frac{7}{24}$ , find the values of  $\sin (A B)$ ,  $\cos (A + B)$ .
  - 4. If B = A + 30, calculate the value of

$$\frac{\sin A + \sin B}{\cos A - \cos B}$$

to three places of decimals.

- 5. Prove that  $\sin 3A = 4 \sin A \sin (A + 60) \sin (A + 120)$ .
- 6. In a plane triangle, assuming the formula for the cosine of an angle in terms of the sides, prove that

$$\Delta = \sqrt{s(s-a)(s-b)(s-c)}.$$

7. If in a plane triangle a = 13, b = 5,  $C = 64^{\circ}$  12', find A and B, given  $\log 2 = 30103$ ,  $\log 3 = 47712$ ,  $L \tan 57^{\circ} 54' = 10 \cdot 20252$ ,

$$L \tan 35^{\circ} 19' 4'' = 9.85034.$$

- 8. If in a plane triangle you are given two sides a and b and the angle A, prove that if there are two possible values of the third side  $c_1$  and  $c_2$  then  $c_1 + c_2 = 2b \cos A$ ,  $c_1c_2 = b^2 a^2$ .
- 9. In a plane triangle if r and R are the radii of the inscribed and circumscribed circles, prove that

$$\frac{r}{R} = \cos A + \cos B + \cos C - 1.$$

10. In order to find the distances between two trees C and D on the opposite side of a river I measure off a line AB, 100 yards long. I then find the following values for the angles:  $CAB = 120^{\circ}$ ,  $CBA = 30^{\circ}$ ,  $DBA = 90^{\circ}$ ,  $DAB = 60^{\circ}$ . Find CD.

#### LOGIC.

#### MR. ALTON.

1. Distinguish, giving examples, Simple conversion, Conversion per accidens, Contraposition.

- 2. If the middle term is the predicate of both premises in a valid syllogism, what do you know about the conclusion? Prove your answer.
- 3. What is meant by Reduction? Reduce the following argument:—All politicians are, of course, patriotic, but patriotism is not necessarily incompatible with a regard for personal advancement: there are politicians who are not blind to their own interests.
- 4. (a) In what figures do AI and IA give a valid conclusion? Give reasons for your answers.
  - (b) Define a sorites, and prove the two special rules that apply to it.
  - 5. Construct arguments to illustrate:-
  - (a) Fallacy of Accident.
  - (b) Illicit Process of Minor.
  - (c) Fallacy of Many Questions.
  - 6. Criticize the following arguments:-
- (a) Mr. Dooley saved the Allies: when he arrived in France, the Germans retreated.
- (b) Success is due either to great talent or great industry. Since Gibbon's industry was notorious, we can assume that he was not a talented historian.
- (c) Over-credulous persons ought never to be believed. Herodotus is at times as credulous as a child, and we ought therefore always to refuse to trust him.
- (d) The railwayman, the bricklayer, the engineer, the cabinet-maker derive benefit from their unions. If every workman belonged to a union, all workmen would derive great benefit thereby.

#### MECHANICS.

## MR. FRASER.

- 1. A man wishes to cross a river to an exactly opposite point on the other bank. If he can pull his boat with twice the speed of the current, find at what inclination to the current he must keep the boat pointed.
- 2. Two smooth inclined planes are placed back to back. Two equal masses are connected by a light string passing over a smooth pulley at the common edge, and placed one on each plane so that the string sight, and the two masses and the pulley are in the same vertical plane. If the inclinations of the planes are sin<sup>-1</sup>  $\frac{20}{9}$ , sin<sup>-1</sup>  $\frac{1}{17}$ , find the acceleration of the system, and the tension of the cord.
- 3. Find the H. P. which an engine must develop if, by the exertion of a constant force, it is able in 10 minutes to compel a train to move with a velocity of 30 miles per hour. The mass of the train is 300 tons, and the resistances due to friction, etc., are 20 lbs. weight per ton.

- 4. Determine the magnitude of the constant force which will move a mass of  $11\frac{1}{2}$  stone along a straight line through a distance of 100 yards in  $10\frac{2}{3}$  seconds.
- 5. Explain what is meant by the term 'work done by a force.' Write down its dimensions.
- (a) State and prove the geometrical property of a parallelogram on which depends the fact that the work done by two forces whose lines of action meet is equal to the work done by their resultant.
- 6. Prove that the combined effect of a number of coplanar couples acting on a body can be produced by a single couple. Determine the connexion which exists between the couples and the equivalent single couple.
- 7. A heavy particle whose weight is W is sustained on a smooth inclined plane by three forces applied to it, each equal to  $\frac{W}{3}$ ; one acts vertically upwards, another directly up the plane, and the third horizontally. Find the inclination of the plane.
- 8. A straight line is drawn parallel to the base of a triangle, and cuts off 1sth of its area. Find the position of the centre of gravity of the remainder.

# For Supplemental Senior Freshmen, questions 5, 6, 7, 8, and-

- Show how to determine the resultant of two unlike forces whose lines of action are parallel.
- 10. Draw a diagram of any system of pulleys, and explain the use of the system.
  - 11. Find the resultant of a force and a couple.
- 12. A uniform bar AB, 50 inches long, and capable of rotating round one end A, is tied by a string to its middle point C, and to a point D. If AD is horizontal and 14 inches in length, and the length of the string is 25 inches, find the magnitude of the tension.
  - (a) Determine the action of the joint at A on the bar AB.

#### LATIN.

#### MR. TATE.

[All Candidates must attempt either the Unprepared Passage or the Composition.]

## [A.]

#### UNPREPARED PASSAGE.

Iam violas puerique legunt hilaresque puellae, Rustica quas nullo terra serente vehit. Prataque pubescunt variorum flore colorum: Iudocilique loquax gutture vernat avis. Utque malae crimen matris deponat hirundo, Sub trabibus cunas tectaque parva facit. Herbaque, quae latuit Cerealibus obruta sulcis, Exserit e tepida molle cacumen humo. Quoque loco est vitis, de palmite gemma movetur: Nam procul a Getico litore vitis abest.

#### COMPOSITION.

Thus embarrassed, as he passed by Locri on his return from Rhegium to Tarentum, he listened to the advice of some of his followers, and plundered the temple of Proserpine. In the vaults underneath this temple was a large treasure which had been buried for unknown generations, and no mortal eye had been allowed to look on it. This he carried off, and embarked his spoil on board of his ships, to transport it by sea to Tarentum. A storm, however, arose and wrecked the ships, and cast ashore the plundered treasure on the coast of Locri.

## [в.]

## (Final Freshmen.)

1. Translate:-

Dixerat. Ille patris magni parere parabat
Inperio; et primum pedibus talaria nectit,
Aurea, quae sublimem alis sive aequora supra
Seu terram rapido pariter cum flamine portant;
Tum virgam capit (hac animas ille evocat Orco
Pallentis, alias sub Tartara tristia mittit,
Dat somnos adimitque, et lumina morte resignat);
Illa fretus agit ventos, et turbida tranat
Nubila; iamque volans apicem et latera ardua cernit
Atlantis duri, caelum qui vertice fulcit,
Atlantis, cinctum adsidue cui nubibus atris
Piniferum caput et vento pulsatur et imbri.

- 2. Parse apicem, vertice, cinctum, pulsatur.
- 3. Give the meaning of bractea, crateres, ulmus, portitor, patruus.

# (For Trinity Supplementalists.)

I. Translate:-

 Ly. Adulescenti hinc genere summo, amico atque aequali meo, Minus qui caute et cogitate suam rem tractavit, pater, Bene volo ego illi facere, si tu non nevis. Ph. Nempe de tuo?
 Ly. De meo: nam quod tuomst meumst, omne meumst autem tuom.

Ly. De meo: nam quod tuomst meumst, omne meumst autem tuom. PH. Quid is? egetne? Ly. Eget. PH. Habuitne rem?

Ly. Habuit. Ph. Qui cam perdidit? Publicisne adfinis fuit an maritumis negotiis? Mercaturan, an venalis habuit, ubi rem perdidit?

Ly. Nil istorum. Ph. Quid igitur? Ly. Per comitatem edepol, pater:

Praeterea aliquantum animi causa in deliciis disperdidit.

- Pm. Edepol hominem praemandatum ferme familiariter:
  Quiquidem nusquam per virtutem rem confregit, atque eget.
  Nil moror eum tibi esse amicum eum eius modi virtutibus.
- 2. Give the meaning of the following phrases: -num quid vis? Sed quid ais? meo sum promus pectori, sine sacris hereditas, ad incitas redactust.
  - 3. Parse tis, posiveris, obrepseris, servassint.

# (For Hilary Supplementalists.)

## I. Translate :-

Postquam res publica adolevit et multitudine civium factiones valuere, circumveniri innocentes, alia huiuscemodi fieri coepere, tum lex Porcia aliaceque leges paratae sunt, quibus legibus exilium damnatis permissum est. Hanc ego causam, patres conscripti, quo minus novom consilium capiamus in primis magnam puto. Profecto virtus atque sapientia maior illis fuit, qui ex parvis opibus tantum imperium fecere quam in nobis, qui ea bene parta vix retinemus. Placet igitur eos dimitti et augeri exercitum Catilinae? minume. Sed ita censeo, publicandas eorum pecunias, ipsos in vinculis habendos per municipia, quae maxume opibus valent, neu quis de eis postea ad senatum referat neve cum populo agat: qui aliter fecerit, senatum existumare eum contra rem publicam et salutem omnium facturum.

- 2. Parse adolevit, coepere, conscripti, augeri, fecerit.
- 3. Mention shortly the chief characteristics of Sallust as an historian.

GREEK.

MR. LUCE.

(For Final Freshmen.)

Translate:-

ως άρα τις είπεσκε και οὐτήσασκε παραστάς. τον δ' έπει έξενάριξε ποδάρκης δίος 'Αχιλλεύς, στας έν 'Αχαιοίσιν έπεα πτερόεντ' αγόρευεν' " & φίλοι, 'Αργείων ἡγήτορες ἠδὲ μέδοντες, έπει δη τόνδ' άνδρα θεοι δαμάσασθαι έδωκαν, δς κακά πόλλ' ἔρμεξεν, δσ' οὐ σύμπαντες οἱ ἄλλοι, εί δ' άγετ' άμφι πόλιν σύν τεύχεσι πειρηθέωμεν, όφρα κ' ἔτι γνῶμεν Τρώων νόον, ὅν τιν' ἔχουσιν. ή καταλείψουσιν πόλιν άκρην τοῦδε πεσόντος. ήε μένειν μεμάασι και "Εκτορος οὐκέτ' ἐόντος. άλλα τίη μοι ταῦτα φίλος διελέξατο θυμός: κείται παρ νήεσσι νέκυς ακλαυτος άθαπτος Πάτροκλος τοῦ δ' οὐκ ἐπιλήσομαι, ὄφρ' ἄν ἐγώ γε ζωοίσιν μετέω καί μοι φίλα γούνατ' δρώρη. εί δὲ θανόντων περ καταλήθοντ' είν 'Αίδαο, αὐτὰρ ἐγὰ καὶ κεῖθι φίλου μεμνήσομ' ἐταίρου.

νῦν δ' ἄγ' ἀείδοντες παιήονα κοῦροι 'Α χαιών νηυσὶν ἔπι γλαφυρῆσι νεώμεθα, τόνδε δ' ἄγωμεν. ἡράμεθα μέγα κῦδος ' ἐπέφνομεν ' Ἐκτορα δίον, ῷ Τρῶες κατὰ ἄστυ θεῷ ὢς εὐχετόωντο.''

HOMER.

- 1. Parse-γνωμεν, μεμάασι, ἐπιλήσομαι, ἢράμεθα, μετέω, τεύχεσι.
- 2. Write an explanatory note on—ἐπὶ κτέρεα κτερίσαιεν, αἰσυμνητῆρι, διδοῦναι, βούβρωστις, πρόσφατος.
  - 3. Describe the Homeric chariot.

# (For Trinity Supplementalists.)

## Translate: -

ΦΕ. ἄπειμι' θάψεις δ' αὐτὸς ὧν αὐτῆς φονεύς. δίκας δὲ δώσεις σοῖσι κηδεσταῖς ἔτι. ἢ τἄρ' "Ακαστος οὐκέτ' ἔστ' ἐν ἀνδράσιν, εἰ μἡ σ' ἀδελφῆς αἶμα τιμωρήσεται.

ΑΔ. ἔρροις νυν αὐτὸς χἢ ξυνοικήσασά σοι, ἄπαιδε, παιδὸς ὕντος, ὥσπερ ἄξιοι, γηράσκετ' οὐ γὰρ τῷδέ γ' ἐς ταὐτὸν στέγος νεῖσθ' εἰ δ' ἀπειείν χρῆν με κηρύκων ὕπο τὴν σὴν πατρφαν ἐστίαν, ἀπεῖπον ἄν. ἡμεῖς δὲ, τοὐν ποσίν γὰρ οἰστέον κακὸν, στείχωμεν, ὡς ἃν ἐν πυρᾶ θῶμεν νεκοόν.

ΧΟ. ἐὼ ἰώ. σχετλία τόλμης,
 ὧ γενναία καὶ μέγ' ὰρίστη,
 χαῖρε' πρόφρων σε χθόνιός θ' Ἑρμῆς
 Ἅ Αιδης τε δέχοιτ' εἰ δέ τι κὰκεῖ
 πλέον ἔστ' ἀγαθοῖς, τούτων μετέχουσ'
 Ἅ Αίδου νύμφη παρεδρεύρις.

EURIPIDES.

- 1. Parse-θάψεις, δώσεις, ἄπαιδε, ποσίν.
- 2. Explain-θητεύειν, έχίδνης, νόστιμον πόδα.
- 3. Write a short note on the character of Admetus.

# (For Hilary Supplementalists.)

## Translate: -

των δὲ βαρβάρων ὁ πεζὸς ὑπὸ τὴν παρεοῦσαν νύκτα ἐπορεύετο ἐπὶ τὴν Πελοπόννησον καίτοι τὰ δυνατὰ πάντα ἐμεμηχάνητο, ὅκως κατ' ἤπειρον μὴ ἐσβάλοιεν οἱ βάρβαροι. ὡς γὰρ ἐπύθοντο τάχιστα Πελοπόννήσιοι τοὺς ἀμφὶ Λεωνίδεα ἐν Θερμοπύλησι τετελευτηκέναι, συνδραμόντες ἐκ τῶν πολίων ἐς τὸν Ἰσθμὸν Ιζοντο, καί σφι ἐπῆν στρατηγὸς Κλεόμβροτος ὁ ἀναξανδρίδεω, Λεονίδεω δὲ ἀδελφεός. ἰζόμενοι δὲ ἐν τῷ Ἰσθμῷ καὶ συγχώσαντες τὴν Σκιρωνίδα ὁδὸν, μετὰ τοῦτο ις σφι ἔδοξε βουλευομένοισι, οἰκοδόμεον διὰ τοῦ Ἰσθμοῦ τεῖχος. ἀτε δὲ ἐουσέων μυριάδων πολλέων καὶ παντὸς ἀνδρὸς ἐργαζομένου, ἤνετο τὸ ἔργον καὶ γὰρ λίθοι καὶ πλίνθοι καὶ ξύλα καὶ φορμοὶ ψάμμου πλήρεες ἐσεφορέοντο, καὶ ἐλίνυσν οὐδένα χρόνον οἱ βοηθήσαντες ἐργαζόμενοι, οῦτε νυκτὸς οὕτε ἡμέρης.— Η εποροτύς.

- 1. Parso έμεμηχάνητο, συνδραμόντες, έδοξε, ήνετο.
- 2. Give the meaning of ήσπαιρε, έτεραλκὲως, γνωσιμαχέετε, επήλυδα, φρύξουσι.
  - 3. Give a brief account of Themistocles' life and character.

## FRENCH AND GERMAN.

## PROFESSOR RUDMOSE-BROWN.

1. Translate into English:—

D'Urfé nous devait mieux qu'une pastorale de salon, lui qui exprime avec tant d'éloquence, au début du livre, sa tendresse pour son Lignon bien aimé; lui qui sait évoquer si bien les prairies riantes, les bords verdoyants d'un ruisseau, les grottes sauvages sous leur rideau de lierre. Il avait eu l'occasion de fréquenter des paysans dans son Forez, et il ne devait point afficher un dédain si superbe de la réalité. Quand, sur le frontispice de l'ouvrage, nous contemplons cette Astrée si coquette, avec son diadème, son voile et ses habits de cour, ainsi que l'élégant Céladon, aux gestes nobles, croyons-nous voir une véritable bergère et un

véritable berger? Non! assurément.

Die Sprache Hardys ist eine unwahre Bühnensprache. Die Personen reden nicht annähernd so wie im Leben, sondern in schwülstigem Theaterpathos und in hochtönenden Phrasen. Oder wenn es nicht das Pathos ist, so ist es die gezierte Geistreichigkeit, die preziöse Verschnörkelung des Ausdrucks, das Streben nach gesuchten Bildern und gewundenen Vergleichen, ein Jargon, der von der Natürlichkeit und Wahrheit des Lebens in die theatralische Künstelei führt. Von dieser fast durchgänzing unzutreffenden Unnatur des Theaters, in mitten dessen er anfwuchs und zu schaffen begann, hebt sich Corneille klar und schön ab.

2. Translate into French or German :-

'What were you doing behind the curtain?' he asked.

'I was reading.'

'Show the book.'

I returned to the window to fetch it. When I had handed it to him, he added: 'You have no right to take our books; you have no money; your father left you none. You ought to beg, and not live here at our father's expense. You must not read my books. All the house belongs to me. Go and stand by the door.'

I did so.

#### DUTCH.

#### DR. GOLIGHER.

I. Translate into English :-

(a) "Neen heer!" antwoordde Janssen knorrig, "maar zoo gaat het altijd. In ons lieve vaderland is het uit met elk eerlijk beroep, zoolang de rampzalige oorlog aanhoudt. Wat baat ons die kostelijke vot. I.

driemaster, dien wij den onzen noemen, als we toch altijd uit de handen der Hollandsche kooplui moeten blijven azen? We betalen peperduur, wat we in Engeland en Amerika tot de billijkste prijzen uit de eerste hand konden inslaan. Stel het schip een rond jaar te mijner beschikking met het noodige geld en zooveel Neurenberger waren, als ik bergen kan, en laat mij in de Nieuwe Wereld de fortuin eens beproeven. Gij weet, de oude Janssen is er reeds een en andermaal geweest, en is het klappen van de zweep nog niet vergeten. De oude heer zaliger bleef liever in de buurt, en placht te zeggen: "een klein vischje, een zoet vischje," maar de tijden veranderen en wij met hen, en als het tij verloopt, verzet men de bakens."—J. J. L. TEN KATE.

(b) De golven bruisen weer en zwellen
En gulpen over 't slibbrig strand,
Er kabblen plassen in het zand,
Er borlen schuim en waterbellen.
Het anker spant weer aan den reep;
De vloed zet op, de pinken rijzen,
En naar wat streek de wimpels wijzen,
De visschermannen klaut'ren scheep.

't Is vol op d' oever. Vrouen dragen
En kindren zeulen, elk zijn vracht.
De nooddruft wordt aan boord gebracht,
Wie weet voor hoeveel bange dagen!
Het zeil gaat op, het zwaard valt neer,
En of de golven dreigend koken,
De pinken zijn in zee gestoken,
En vrouw en kindren keeren weer.

H. TOLLENS.

2. Translate into Dutch :-

(a) If the advice be good, it is no matter who has given it.

(b) There is scarcely any evil so great as not to be rendered tolerable by patience.

(c) I did not expect to see you here: the greater is my pleasure in

meeting you.

- (d) 'Was ever poet so trusted before?' Johnson exclaimed, when at Goldsmith's death it was found that his debts amounted to hundreds of pounds.
- (e) One of the sailors had disappeared; he had mixed among the crowd without anybody perceiving it.

## ENGLISH COMPOSITION.

#### MR. R. M. GWYNN.

# (For Final Freshmen Candidates.)

- 1. The light and the dark side of Humour.
- 2. The Humourist and Mankind.
- 3. Success achieved by crime.
- 4. The dupes of Richard.

# (For Trinity Supplementalists.)

- 1. The women of George Eliot.
- 2. The army and navy under Charles II and his brother.

# (For Hilary Supplementalists.)

- I. Hampden in war and peace.
- 2. Shams and their exposure.

# JUNIOR SOPHISTERS AND SENIOR SOPHISTER SUPPLEMENTALISTS.

## MATHEMATICAL PHYSICS.

#### MR. H. THRIFT.

- 1. A uniform beam AB, 20 feet long, weighing 50 pounds, is supported horizontally on two props, distant 4 feet and 17 feet from A, and supports a weight of 21 pounds at a distance of 7 feet from A. What weight must be hung on at B to make the pressures on the two props equal?
- 2. What force acting parallel to the base of a rough inclined plane, 25 feet long and 7 feet high, in conjunction with a force equal to the weight of 39 pounds acting parallel to the plane, is just sufficient to drag a weight of 91 pounds up the plane, taking the coefficient of friction to be \(\frac{1}{2}\)?
- 3. Two scale-pans, each of mass 20 grams, are connected by a light cord passing over a smooth pulley. If masses of 12 and 8 grams are placed one in each pan, find the pressures of the masses on the pans during the ensuing motion.
- 4. A body of mass 6 pounds is moving in a direction due east with a velocity of 7 feet per sec. when it begins to be acted on by a constant force. At the end of 3 seconds it is found to be moving in a direction 30° west of north with a velocity of 8 feet per sec. Find the magnitude and direction of the force.
- 5. Prove the formula which expresses the force required to compel a body of mass m pounds to move in a circle of radius r feet with a velocity of v feet per second. In what units is the force expressed?
- 6. A piece of cork weighs 1.2 grams in air. A sinker weighs 14.2 grams in water. The two together weigh 10.4 grams in water. What is the density of the cork?
- 7. If a plane surface be immersed in a liquid, prove that the resultant thrust on it is equal to its area multiplied by the pressure at its centre of gravity, atmospheric pressure being neglected.

- 8. What weight of air enters or leaves a room whose volume is 8960 cubic feet when the barometer falls from 29 to 28 inches, and at the same time the temperature falls from 47° C. to 27° C., given that a cubic foot of air, at a pressure of 30 inches and a temperature of o° C., weighs 1.25 ounces?
- Explain by diagrams how the position and size of the image of an
  object in a concave mirror will change as the distance of the object from
  the mirror changes.
- 10. When the distance of an object from a lens is 27 inches, the image is found to be on the opposite side of the lens at a distance from it of 21.6 inches. A second lens is placed in contact with the first, and it is found that when the distance of the object from the lenses is 66 inches, the image is on the opposite side at a distance from them of 79.2 inches.

Find the focal lengths of the lenses.

## ASTRONOMY.

### MR. WEBB.

# [Answer SEVEN questions only.]

# (For Junior Sophisters.)

- 1. Sketch the astronomical telescope. Its use is twofold—to show detail in large objects like the moon and planets and to make visible stars otherwise invisible. On what does its efficiency for these two ends depend? 'No optical arrangement can increase the intrinsic brightness of an extended surface.' Explain this remark.
- 2. Write an account of the moon's surface structure. How small an object on the surface could be observed with the best telescope?
- 3. What do you know of (a) the dimensions of sun-spots, (b) their distribution on the solar surface, (c) the periodicity of their outbreak?
- 4. Make a list of some of the different sorts of facts in the solar system which have given rise to the 'nebular hypothesis' as their common explanation; and give a brief sketch of this hypothesis.
- 5. Draw diagrams of the observer's celestial sphere at places on the earth of latitude about 10° N. and 80° N. respectively. Mark the celestial equator, pole, zenith, and the horizon, and, by a dotted line, the path of the sun during the 21st June on each diagram.
  - (a) Could you on such a diagram mark the ecliptic?
- Give fully the necessary observations to determine lunar parallax, and obtain a formula giving it in terms of the observed quantities.
- 7. Show from Kepler's laws that the inner of two planets has a greater velocity along its orbit than the outer.

'Retrograde' motion of planets depends on this fact?

- 8. Explain what is meant by the 'equation of time,' and discuss the variation in it during the year arising from one of its two causes—eccentricity of the Earth's orbit, or inclination of the equator to the ecliptic.
- 9. Explain the terms 'Civil Year,' 'Tropical Year,' and 'Sidereal Year.' What change did Gregory make in the calendar of Julius Caesar, and when did England adopt this change?

#### GREEK.

## DR. GOLIGHER.

# (For Junior Sophisters.)

## Translate:-

- ΙΩ. μήτοι με κούψης τοῦθ' ὅπεο μέλλω παθεῖν.
- ΠΡ. άλλ' οὐ μεγαίρω τοῦδέ σοι δωρήματος.
- ΙΩ. τί δητα μέλλεις μη οὐ γεγωνίσκειν το παν;
- ΠΡ. φθόνος μεν οὐδείς, σας δ' ὀκνῶ θράξαι φρένας.
- μή μου προκήδου μᾶσσον ως ἐμοὶ γλυκύ.
- ΠΡ. ἐπεὶ προθυμεῖ, χρη λέγειν ἄκουε δή.
- ΧΟ. μήπω γε' μοιραν δ' ήδονης καμοί πόρε.
- ΧΟ. μήπω γε΄ μοίραν δ΄ ήδονης κάμοι πόρε.
   την τήσδε πρώτον ἱστορήσωμεν νόσον,
   αὐτῆς λεγούσης τὰς πολυφθόρους τύχας
   τὰ λοιπὰ δ΄ ἄθλων σοῦ διδαγθήτω πάρα.
- ΠΡ. σὸν ἔργον, 'Ιοῖ, ταῖσδ' ὑπουργῆσαι χάριν, ἄλλως τε πάντως καὶ κασιγνήταις πατρός. ὡς τὰποκλαῦσαι κὰποδύρασθαι τύχας ἐνταῦθ', ὅπη μέλλοι τις οἴσεσθαι δάκρυ πρὸς τῶν κλύοντων, ἀξίαν τριβὴν ἔχει.

AESCHYLUS.

- I. Parse and give the principal parts of  $\pi \alpha \theta \epsilon \hat{\imath} \nu$ , διδαχθήτω, οἴσεσθαι.
- 2. Explain the case of  $\delta\omega\rho\dot{\eta}\mu\alpha\tau$ os in line 2 of the above passage, the use of  $\mu\dot{\eta}$  où in line 3, of  $\gamma\epsilon$  in line 7, and of the optative in line 14.
- 3. Give the meaning of the following words and phrases in the Prometheus Vinctus:—(a) διεστοιχίζετο ἀρχήν, (b) ἀχρεῖον καὶ παράορον δέμας, (c) φρενῶν ἐπηβόλους, (d) συλλήβδην, (e) ἁρμοῖ.
  - 4. Write a summary account of the plot of this play.

LATIN.

MR. TATE.

[All candidates must attempt either the Unprepared Passage or the Composition.]

[A.]

Unprepared Passage.

Cingitur interea Romanis Ardea signis,
Et patitur lentas obsidione moras.
Dum vacat, et metuunt hostes committere pugnam,
Luditur in castris, otia miles agit.
Tarquinius iuvenis socios dapibusque meroque
Accipit; ex illis rege creatus ait:
'Dum nos difficilis pigro tenet Ardea bello,
Nec sinit ad patrios arma referre Deos;
Ecquid in officio torus est socialis? et ecquid
Conjugibus nostris mutua cura sumus?'

# Composition.

Before him lay a river over which it was easy to advance, but over which, if things went ill, not one of his little band would ever return. On this occasion, for the first and for the last time, his dauntless spiral during a few hours, shrank from the fearful responsibility of making a decision. He called a council of war. The majority pronounced against fighting; and Clive declared his concurrence with the majority. Long afterwards he said that he had never called but one council of war, and that if he had taken the advice of that council the British would never have been masters of Bengal.

[B.]

(For Junior Sophisters.)

## I. Translate :-

Murice Baiano melior Lucrina peloris,
Ostrea Circeiis, Miseno oriuntur echini,
Pectinibus patulis iactat se molle Tarentum.
Nec sibi cenarum quivis temere adroget artem,
Non prius exacta tenui ratione saporum.
Nec satis est cara piscis averrere mensa,
Ignarum quibus est ius aptius et quibus assis
Languidus in cubitum iam se conviva reponet.
Umber et iligna nutritus glande rotundas
Curvat aper lances carnem vitantis inertem;
Nam Laurens malus est, ulvis et harundine pinguis.
Vinea submittit capreas non semper edulis.
Fecundae leporis sapiens sectabitur armos.

HORACE.

# JUN, SOPHISTERS AND SEN. SOPHISTER SUPPLEMENTALISTS. XXXI

- 2. Give the meaning of-mordicus, strabo, collyria, sura, mantica, antestari.
  - 3. Parse-exacta, vitantis, harundine.

(For Senior Sophister Hilary Supplementalists.)

I. Translate :-

Plenus est sextus liber de officiis Hecatonis talium quaestionum: 
'sitne boni viri in maxima caritate annonae familiam non alere.' In 
utramque partem disputat, sed tamen ad extremum utilitate, ut putat, 
officium derigit magis quam humanitate. Quaerit, 'si in mari iactura 
facienda sit, equine pretiosi potius iacturam faciat an servoli vilis?' 
Hic alio res familiaris, alio ducit humanitas—'Si tabulam de naufragio 
stultus arripuerit, extorquebitne eam sapiens, si potuerit?' Negat, 'quia 
sit iniurium.'—'Quid dominus navis? eripietne suum?' 'Minime, 
non plus quam navigantem in alto eicere de navi velit, quia sua sit. 
Quoad enim perventum est eo, quo sumpta navis est, non domini est 
navis sed navigantium.' 'Quid? si una tabula sit, duo naufragi eique 
sapientes, sibine uterque rapiat an alter cedat alteri?' 'Cedat vero, sed 
ei cuius magis intersit vel sua vel rei publicae causa vivere.'—Cicero.

- 2. Parse-arripuerit, perventum est, navigantium, cedat.
- 3. Mention any of the cases stated by Cicero wherein a man is not bound to carry out his engagements and fulfil his vows.

(For Senior Sophister Trinity Supplementalists.)

Postquam est in thalami pendentia pumice tecta

I. Translate:-

Perventum et nati fletus cognovit inanes
Cyrene, manibus liquidos dant ordine fontes
Germanae tonsisque ferunt mantelia villis,
Pars epulis onerant mensas et plena reponunt
Pocula, Panchaeis adolescunt ignibus arae,
Et mater 'cape Maeonii carchesia Bacchi:
'Oceano libemus' ait. Simul ipsa precatur
Oceanumque patrem rerum Nymphasque sorores,
Centum quae silvas, centum quae flumina servant.
Ter liquido ardentem perfudit nectare Vestam,
Ter flamma ad summum tecti subiecta reluxit.

- 2. Give the meaning of-carduns, bufo, fiscina, funda, amurca.
- 3. Parse-tonsis, libemus, perfudit, subiecta.

## FRENCH AND GERMAN.

PROFESSOR RUDMOSE-BROWN.

1. Translate into English: -

Either.

L'un des soldats, encore tout jeune, me répondit en un français beaucoup meilleur que mon allemand: 'Ah! nous avons blessé votre frère? Que voulez-vous, c'est la guerre.' Je fis appel à sa pitié, pour le supplier de m'envoyer le secours demandé. Il me le promit de très bonne grâce, et il transmit ma requête à son caporal en la lui traduisant et en la lui commentant avec chaleur. Le caporal acquiesça de la tête et l'escouade fit volte-face.

Avant de partir, comme il se penchait sur mon frère dans un mouvement de compassion qui me toucha sincèrement, mon jeune interprète aperçut, sous la courroie de mon sac, un morceau de pain de munition. 4 Oh! du pain blane! s'écria-t-il avec un accent de convoitise. Voilà longtemps que je n'en ai mangé; voulez-vous m'en donner? pas comme ennemi, comme camarade.

Or.

Mit einer raschen Bewegung hob Hans Adam seinen Kopf empor., Weisst Du, Juie, "— er that wie beilaüfig diese Frage—,, ob Dein Nachbar Schmüser seinen grossen Speicher noch verkaufen will?"

Frau Jule, die mit ihrer letzten Aeusserung ihn zu einer ganz anderen Antwort hatte reizen wollen und so lange schon darauf gewartet hatte, meinte ärgerlich, da thue er am besten, selbst darum zu fragen.

hatte, meinte ärgerlich, da thue er am besten, selbst darum zu fragen.
"Ja, ja; da hast Du recht." Er nickte kurz und hatte schon ein
paar Schritte der Strasse zu gethan, in der Fritz Schmüser wohnte, als
die Schwester, unachtend des Jungen, der seitwärts unter seinen
Schinken stöhnte, ihn noch einmal festzuhalten suchte; so wohlfeil
sollte er denn doch nicht davon kommen. "Hans Adam!" rief sie;
"warte noch einen Augenblick! Dein Heinz ..."

"warte noch einen Augenblick! Dein Heinz"..."

Hans Adam stand bei diesem Namen plötzlich still. "Was willst

Du, Jule?" frug er hastig. ,, Was soll das mit meinem Heinz?"

2. Translate into French or German :-

Meanwhile Le Caron had long been absent on a more noteworthy mission.

While his brethren were building their convent and garnishing their altar at Quebec, the ardent friar had hastened to the site of Montreal, then thronged with a savage concourse come down for the yearly trade. He mingled with them, studied their manners, tried to learn their languages, and, when Champlain and Pontgravé arrived, declared his purpose of wintering in their villages. Dissuasion availed nothing. 'What,' he demanded, 'are privations to him whose life is devoted to perpetual poverty, and who has no ambition but to serve God?'

#### PSYCHOLOGY.

#### MR. JOHNSTON.

# [Answer any five questions.]

- 1. What methods of investigation have been adopted by Psychologists f Write a note on the difficulties inherent in any two of them.
  - 2. What is the relation between Psychology and Ethics?
- 3. What indications are there that 'psychological laws prevail beyond the province of conscious life'?

# JUN. SOPHISTERS AND SEN. SOPHISTER SUPPLEMENTALISTS. XXXIII

4. What is the scientific value of the tripartite classification of psychological elements?

Under what conditions may it be said to correspond to the reality of

conscious life?

- 5. Write a note on the self-dependence of sensations.
- 6. Distinguish between sensation, perception, and free representation.
- 7. What is the psychological genesis of sympathy?
- 8. How do the feelings of the sublime and the ridiculous respectively come into existence?
- 9. How is the transition from involuntary to voluntary attention effected?

#### ETHICS.

## MR. ROGERS.

## (Senior Sophister Supplementalists.)

- 1. (a) Write a note on ethical judgments with reference to virtue and vice, right and wrong, good and bad.
- (b) Distinguish between actions objectively right and subjectively right.
- (c) Discuss the difficulties arising from the fact that they do not always coincide.
  - (d) How far does a good motive make an action good?
  - 2. (a) Give an account of Plato's theory of Justice.
- (b) How does his conception of Justice seek to reconcile the claims of public and private good?
- 3. (a) What are the best personal qualifications for an ethical enquiry according to Aristotle?
- (b) What was 'virtue' in the most general sense for the Greeks? What are virtues of the conscious human soul?
  - (c) What are the two kinds of the last-mentioned virtues?
- 4. (a) State Aristotle's definition of moral virtue, with explanatory notes.
  - (b) Give four examples of virtue as a mean between two extremes.
- 5. Give an account of the Stoic doctrines as regards (a) Virtue and knowledge, (b) Resignation, (c) Things morally 'indifferent.'

#### HISTORY AND POLITICAL SCIENCE.

#### MR. CURTIS.

# [Select four questions: two from each section.]

1. Describe the empire of Henry II, and show how he came to possess it.

- 2. Give some description of the state of Scotland just before 1290.
- 3. The importance in the Hundred Years' War of the Battle of Crecy; the Treaty of Bretigni; the Siege of Orleans; the death of the Duke of Bedford.
- 4. Show how Henry VII completed the ruin of the old baronage as brought about by the Wars of the Roses.
  - 5. Write on the influence of Colet, More, Latimer on their times.
- 6. Show the growth of Puritanism, 1583-1603. What chief kinds of Puritans were there?
- 7. Discuss the part taken by either Ireland or Scotland in the Civil War, 1642-1649.
- 8. Why was it necessary for the elder Pitt to be a great war minister, and for the younger one to be a great peace minister?

#### EDUCATION.

## MR. HENRY.

# (For Junior Sophisters.)

- 1. Describe the beginnings among primitive communities of teaching as a distinct professional vocation.
- 2. Analyse fully the content of Athenian education during the historic period.
- 3. Why does Dr. Montessori think that mistakes should not be corrected? Indicate briefly your own attitude towards the question.
- 4. 'The contention of the foremost American educationists is that prescribed didactic material is a contradiction in terms.' Explain and criticize.

# (For Trinity Supplementalists.)

- Indicate clearly the connexion between religious tenets and educational methods during the sixteenth and seventeenth centuries.
- 2. 'Mathematics...should be taught...not so much to make them mathematicians as to make them reasonable creatures.' Discuss this diction with reference to (a) mathematics, (b) humanistic subjects.
- State and criticize Rousseau's views on education according to nature, and compare with the modern education through interest.
- 4. How would you introduce the principle of causation according to scientific laws to a class aged 12-14?

ESSAY.

## MR. WILKINS.

# (Choose one subject.)

(For Junior Sophisters (Michaelmas Term).

- 1. Queen Bess.
- 2. The episodes of the Tale of Two Cities which abide longest in the memory.

# (For Trinity Senior Sophister Supplementalists.)

- 1. Carlyle as a precursor of Treitschke, Nietzsche, and the Emperor Wilhelm II.
- z. The changes in private and public life advocated by More in his Utopia.

# GENERAL EXAMINATION FOR THE DEGREE OF BACHELOR OF ARTS.

## MATHEMATICAL PHYSICS.

#### MR. FRY.

- 1. Find the distances from the sides of the centre of gravity of eight weights of 1, 2, 3, 4, 5, 6, 7, and 8 lbs., placed in order at the vertices and middle points of the sides of a rectangle ABCD, beginning with the vertex A, when the sides AB, BC of the rectangle are 4 and 2 ft., respectively.
- 2. A weight of 60 lbs. is on the point of motion down a rough inclined plane when supported by a force of 24 lbs. weight, acting parallel to the plane, and is on the point of motion up the plane when under the influence of a force of 36 lbs. weight, also acting parallel to the plane; find the coefficient of friction.
- 3. A spring-balance is carried in a balloon which is ascending vertically. Find the acceleration of the balloon when a half-pound weight hung upon the spring-balance is found to indicate 9 ounces.
- 4. Two weights of 9 and 7 ounces are attached to the ends of a cord which passes over a smooth light pulley. Motion is allowed to continue for 2 seconds, and the string is then cut. Find how high the smaller weight will then ascend.
- 5. Prove that the sum of the kinetic and potential energies of a projectile remains constant.
- 6. A lump of metal, of specific gravity 10, has a hollow space inside it; find the size of the hollow space, given that the metal weighs 4000 lbs. in air, and 3475 in water.
- 7. A quantity of air is collected at o°C. and 76 cm. pressure. The pressure is then increased to 78 cm.; what change of temperature will cause the volume to increase up to its original value?
- 8. A glass hydrometer weighted with mercury, having its stem uniformly graduated, reads 0 in water, and 15 in a liquid of sp. gr. 1.2: what will be the sp. gr. of a liquid in which the reading is 30?
- 9. Place a convex lens of focal length 5 inches, so that the image of a candle-flame shall be formed on a screen placed at a distance of 3 feet from the candle.
- 10. If index of refraction of water be \$\frac{4}{3}\$, and that of glass \$\frac{3}{2}\$, show that a ray of light incident at an angle of 45° in glass will be totally reflected, but that a ray incident at 45° in water will be refracted into the air.

#### ASTRONOMY.

#### MR. WEBB.

# [Full marks for SIX full answers.]

- Describe the construction of the filar-position micrometer, and explain its use.
- 2. Prove that the average daily retardation of (a) moonrise and (b) Moon's meridian transit is  $50\frac{1}{2}$  minutes in each case.

Why are there considerable variations from the average in case (b)

and still greater variations in case (a)?

- 3. Give the main principles of spectrum analysis of use in astronomy. How is it inferred that the photosphere of the Sun is surrounded with a cooler layer of gases?
- 4. Give a list of some of the remarkable uniformities which exist in the planetary system, and a short account of the theory—the 'Nebular Hypothesis'—which was formed to explain them.

5. How is the size of the Earth determined?

Show that as exact as possible a solution of this problem is of fundamental importance in astronomy.

Is there any way of determining celestial distances which does not

ultimately depend on it?

6. 'Venus goes round the Sun faster than the Earth does.' Distinguish between the two interpretations this somewhat loosely worded sentence may be given.

Prove the formula connecting Venus' synodic and sidereal periods.

7. What is the physical cause of twilight?

Show by a diagram that its duration on a given day at a given place may be calculated, assuming it is possible (as it is) to find the angles of a spherical triangle when the sides are known.

8. What is the mean local time at a place 30° W. of Greenwich when the sundial indicates 4 p.m.? The equation of time at Greenwich mean noon is + 2′ on the day in question, and + 2′ 12″ on the next day. Give the answer correct to two places of decimals of a second.

#### GREEK.

#### MR. LUCE.

Translate: -

της δε κακης τε και αισχράς παιδείας εν πόλει άρα μη τι μείζον έξεις λαβείν τεκμηριον ή το δείσθαι ιατρών και δικαστών άκρων μη μόνον τους φαύλους τε και χειροτέχνας, άλλα και τους εν ελευθέρω σχήματι προσποιουμένους τεθράφθαι; ή οὐκ αισχρόν δοκεί και απαιδευσίας μέγα τεκμηριον το έπακτώ παρ' άλλων, ώς δεσποτών τε και κριτών, τῷ δικαίω ἀναγκάζεσθαι χρησθαι, και ἀπορία οἰκείων; πάντων μέν οὖν, ἔφη, αισχιστον.

ἢ δοκεῖ σοι, ἢν δ' ἐγώ, τούτου αἴσχιον εἶναι τοῦτο, ὅταν ὅἡ τις μὴ μόνον τὸ πολὺ τοῦ βίου ἐν δικαστηρίοις φεύγων τε καὶ διώκων κατατρίβηται, ἀλλὰ καὶ ὑπὸ ἀπειροκαλίας ἐπ' αὐτῷ δὴ τούτῳ πεισθῆ καλλωπίζεσθαι, ὡς δεινὸς ὡν περὶ τὸ ἀδιικεῖν καὶ ἰκανὸς πάσας μὲν στροφὰς 
στρέφεσθαι, πάσας δὲ διεξόδους διεξελθών ἀποστραφῆναι λυγιζόμενος, 
ὥστε μὴ παρασχεῖν δίκην, καὶ ταῦτα σμικρῶν τε καὶ οὐδενὸς ἀξίων ἔνεκα, 
ἀγνοῶν ὄσφ κάλλιον καὶ ἄμεινον τὸ παρασκευάζειν τὸν βίον αὐτῷ μηδὲν 
ξεῖσθαι νυστάζοντος δικαστοῦ;— Plato.

- 1. Parse: τεθράφθαι, κατατρίβηται, πεισθή, αποστραφήναι παρασχείν.
- 2. Give the meaning of : διήγησις, χρεμετίζειν, ενόπλιον, ἀπειροκαλία.
- 3. Explain the importance of music in Plato's system of education.
- 4. 'Our guardians ought not to be given to laughter.' Why not?
- 5. What is the 'Phoenician story' that Socrates tells with a show of reluctance?

#### LATIN.

DR. GOLIGHER.

# [A.]

[Candidates should attempt either the Unprescribed Passage or the Composition.]

# Unprescribed Passage.

Eiusdem anni rem dictu parvam praeterirem, ni ad religionem visa esset pertinere. Tibicines, quia prohibiti a proximis censoribus erant in aede Iovis pasci, quod traditum antiquitus erat, aegre passi, Tibur uno agmine abierunt, adeo ut nemo in urbe esset, qui sacrificiis praecineret. Eius rei religio tenuit senatum, legatosque Tibur miserunt, ut darent operam, ut ii homines Romanis restituerentur. Tiburtini, benigne polliciti, primum accitos eos in curiam hortati sunt, uti reverterentur Romam: postquam perpelli nequibant, consilio haud abhorrente ab ingeniis hominum eos aggrediuntur. Die festo alii alios per speciem celebrandarum cantu epularum invitant, et vino, cuius avidum ferme genus est, oneratos sopiunt, atque ita in plaustra somno vinctos coniciunt ac Romam deportant; nec prius sensere, quam plaustris in foro relictis plenos crapulae eos lux oppressit.—Livy.

# Latin Composition.

Many who praise virtue do no more than praise it; yet it is reasonable to believe that Addison's profession and practice were at no great variance, since, amidst that storm of faction in which most of his life was passed, though his station made him conspicuous, and his activity made him formidable, the character given him by his friends was never contradicted by his enemies; of those, with whom interest or opinion united him, he had not only the esteem, but the kindness; and of others, whom the violence of opposition drove against him, though he might lose the love, he retained the reverence.—Johnson.

[B.]

Translate :--

Ambigitur quoties uter utro sit prior, aufert Pacuvius docti famam senis, Accius alti, Dicitur Afrani toga convenisse Menandro. Plautus ad exemplar Siculi properare Epicharmi, Vincere Caecilius gravitate, Terentius arte. Hos ediscit et hos arto stipata theatro Spectat Roma potens; habet hos numeratque poetas Ad nostrum tempus Livi scriptoris ab aevo. Interdum vulgus rectum videt, est ubi peccat. Si veteres ita miratur laudatque poetas. Ut nihil anteferat, nihil illis comparet; errat. Si quaedam nimis antique, si pleraque dure Dicere credit eos, ignave multa fatetur; Et sapit et mecum facit et Iove iudicat aequo. Non equidem insector delendaque carmina Livi Esse reor, memini quae plagosum mihi parvo Orbilium dictare; sed emendata videri Pulchraque et exactis minimum distantia miror: Inter quae verbum emicuit si forte decorum et Si versus paullo concinnior unus et alter. Iniuste totum ducit venditque poema.

HORACE.

- 1. Write a note on each of the writers mentioned in this passage.
- 2. Give the principal parts of—aufert, vincit, ediscit, comparet, fatetur, reor, emicuit.
  - 3. Explain :-
    - (a) Donatum iam rude.
    - (b) Fidibusne Latinis Thebanos aptare modos studet?
    - (c) Archaicis recumbere lectis.
  - (d) Omnis Aristippum decuit color et status et res.
  - (e) Imi derisor lecti.

#### FRENCH.

#### PROFESSOR RUDMOSE-BROWN.

I. Translate into English: -

La loi de la mer au moyen âge.

L'entrée de la cuisine, de la cambuse et de la bouteillerie est strictement interdite à tous autres qu'au maître-coq, au bouteiller ou à leurs aides; quiconque enfreint cette prescription, ou s'empare de vivres ou de boissons, est mis aux fers pendant trois jours, au pain et à l'eau. S'il moleste le personnel des cuisines, la victime doit immédiatement se plaindre au capitaine, sous peine de se voir confisquer un demimois de solde. Quant au maître-coq, il lui est défendu de s'approprier la graisse ou le saindoux qui tombent des viandes: il doit l'utiliser,

uniquement et entièrement à faire des potages. De même le bouteiller ne peut considérer comme siennes les futailles vides. Ni l'un ni l'autre n'ont le droit d'emporter quoi que ce soit hors du navire ni de se livrer à aucun commerce au dehors. Ils seraient, dans chacun de ces cas, considérés et punis comme voleurs.

Nul homme de l'équipage ne peut recevoir de lettre qu'ouverte; si la lettre est cachetée, l'amiral seul a le droit de faire sauter le cachet. On s'en rapporte à la coutume pour punir la réclamation injustifiée d'une

dette ancienne.

L'homme de quart qui se laisse surprendre endormi est, la première fois, attaché au mât et châtié par le quartier-maître; la deuxième fois, cette même peine s'aggrave d'un triple plongeon dans la mer; la troisième fois, l'homme est exécuté. Les soldats sont tenus au service de quart comme les marins, et astreints à la manœuvre en cas de mauvais temps. Les uns et les autres sont traités comme voleurs s'ils gaspillent de la poudre ou toute autre munition de guerre.

## 2. Translate into French :-

When Mme, de Sévigné arrived in Paris after her husband's death, that city was in a state of ferment. It was the eve of the second fronde-Mazarin was ready to flee; Condé was at liberty and could have seized the regency from the Queen had he and Orléans not been too jealous of each other to combine; all the gates of Paris were guarded; so frightened were the Frondeurs of the Queen escaping that no woman could leave the Palais Royal without taking off her mask and giving her name. La grande mademoiselle had offered to serve as intermediary between her father and the Queen, but the price of her embussy would be marriage with the young King her cousin. And in the midst of all these tumults and intrigues, when they feared that at any moment the young King might flee or might be carried off by the princes, the capital seemed plunged in a mad frenzy of gaiety-balls, fêtes, the parks thronged with carriages, the theatres crowded with spectators; everywhere calm faces and agitated hearts. It was at one of those splendid fêtes with which at this time she delighted the great, that la grande mademoiselle refused the hand of Charles II, then in exile in France. Intoxicated with the homage, of which she was then the object, she saw herself already Queen of France.

#### ENGLISH COMPOSITION.

#### MR. R. M. GWYNN.

Write an essay on one of the following subjects :-

- (a) Britain and India.
- (b) Colonial Independence.
- (c) The orations over Caesar, and the attitude of the crowd.
- (d) The friendship between Brutus and Cassius.

## ETHICS.

#### MR. ROGERS.

# [Full marks will be given for answering SIX questions.]

- 1. Write notes on (a) Good and Knowledge, (b) Moral Virtues and Special Virtues.
- 2. Describe Plato's theory of (a) Justice in the State, (b) Justice as a Personal Virtue, (c) the relation between these.
- 3. (a) Why does Aristotle refuse to identify pleasure, wealth, or honour with Well-being?
  - (b) What is his general conception of Well-Being?
- 4. What is the resemblance and what is the essential distinction between the Social Ethics of Spinoza and of Hobbes?
  - 5. (a) What is the 'moral sense' theory as described by Hutcheson?
  - (b) In what respect is the autonomic intuitionism of Butler superior?
- 6. What is the defect, so far as Ethics is concerned, of Hume's doctrine that the Ego is merely a 'bundle' of impressions, ideas, and feelings?
- 7. Describe Kant's doctrine of the relation between Good and the Moral Law.
- 8. Explain and criticize Spencer's statement that 'the sense of duty or moral obligation is transitory.'

#### PSYCHOLOGY.

#### MR. KENNEDY.

[Full marks may be obtained by answering five questions—not more than three to be selected from one section.]

#### SECTION A.

- 1. (a) Point out clearly parallel features in consciousness and the nervous system.
- (b) State with comments four hypotheses as to the relation of mind and body.
- 2. (a) What hypothesis is mentioned by Höffding as to the extension of mental life?
  - (b) What caution, as to the use of this hypothesis, does he add?
- 3. (a) What is meant by a classification of psychological elements according to height, as distinguished from a classification according to breadth?
- (b) This point of view (i.e., classification according to height) was anticipated at an early period in psychology?
  - (c) How is it related to the evolution hypothesis?

- 4. Distinguish the formal from the real unity of consciousness.
- 5. Discuss the process whereby general ideas are arrived at.

## SECTION B.

- 6. What relation does Höffding trace between feeling and sensation?
- 7. Describe the genesis and development of sympathy.
- 8. (a) Define humour.
- (b) Explain the following remark:—'Shakespeare's humour is a part of his faith in the world.'
- 9. 'The two conceptions, self-determination and freedom from the causal law, which are so often thought to mean the same thing, really neutralize one another.' Show this.
- 10. Point out the limitations of the evolution hypothesis as an explanation of psychical individuality.

## POLITICAL AND ECONOMIC SCIENCE.

## MR. BASTABLE.

[Five questions to be selected; not more than three to be taken from either section.]

#### SECTION A.

1. It has been said that 'the Crown of England is a convenient working hypothesis.'

Explain and illustrate this statement.

- 2. Estimate the extent to which the theoretical responsibility of the ministry to Parliament is practically effective.
- 3. Distinguish between dissolution, prorogation, and adjournment in respect to the Houses of Parliament. What are the functions of the Speaker of the House of Commons?
- 4. 'There are two different modes of organizing a Federal Union.'
  Notice the points of contrast in these two forms of federalism, and
  give historical or actual examples of each.
- 5. Distinguish between the essence and the particular forms of representative government. How is the difference to be traced in the English Constitution?

#### SECTION B.

- 6. Point out the chief causes that counteract the operation of the law of diminishing return. What is meant by saying that 'the law is only true under statical conditions'?
- Compare the influence of competition with that of custom on the system of distribution as it exists in modern societies.

- 8. Explain clearly the services that a large gold reserve performs. Give your own opinion on the proposed rule that the gold reserve in England should be maintained at £150,000,000.
- 9. Discuss (a) the immediate, (b) the ultimate effects of agricultural improvements on the interest of the land-owning class.
- 10. In what different ways may consumable commodities be taxed? Explain the historical contrast between 'excise' and 'customs' duties.

## EDUCATION.

## MR. HENRY.

# [Answer Four questions.]

- 1. 'Conventional educators follow Herbart, reformers Pestalozzi and Froebel.' Discuss with reference to the influence of each on modern ideas.
- 2. What steps are necessary to secure the recognition of the secondary teacher as a member of a definite profession?
- (a) Whether is it desirable in your opinion that such teachers should form an independent profession, with a self-governing council, or a branch of the Civil Service, with security of tenure and retiring pensions?
- 3. To what extent can instruction in parental and civil functions be included in the school curriculum?
- 4. Explain and criticize the ascetic tendency in the physical education of children.
- 5. Analyse Newman's ideal of the philosophical habit of mind, and examine how far the study of ancient classical literature is necessary to its formation.
- 6. How far can self-determination be allowed to the primary school pupil?
- 7. 'The object of education is to make the school as successful an institution as the nursery.' Discuss with reference to kindergarten and other modern methods.
- 8. Indicate how far the bread-and-butter aim is compatible with, and may lead to, the other aims mentioned by Bagley.
- 9. Note the chief mental characteristics of the adolescent period, and examine how far they make the teacher's work (a) easier, (b) more difficult.
- 10. How far is it (a) possible, (b) desirable, to eliminate learning by rote from the work of the secondary school?

# Milary Term, 1919.

# ENTRANCE EXAMINATION.

## JANUARY.

## ARITHMETIC.

MR. ROGERS.

1. Express  $\frac{3}{7}$  as a recurring decimal.

Reduce '037 to a fraction in its lowest terms.

- 2. Multiply 92.1345259 by .0531792 correct to two decimal places.
- 3. Express 3 roods 12 perches as a decimal of an acre.
- 4. A merchant sells coal at £2 14s. 8d. a ton. What is the total cost of carriage and delivery if he pays £1 10s. a ton at the pit's mouth, and makes a profit of 10 per cent.?
- 5. Three partners invest respectively £580, £670, and £550. How much should each receive out of a total profit of £370?
  - 6. Find the compound interest on £5000 for 3 years at 5 per cent.

#### ALGEBRA.

## MR. H. THRIFT.

- 7. If a = 2, b = 3,  $c = \frac{1}{2}$ ,  $d = \frac{1}{12}$ , find the value of  $6[a 2\{b 3(c + d)\}] 4[a 3\{b 4(c d)\}]$
- 2. Divide  $14x^4 29x^3 + 53x^2 + 76x 96$  by  $2x^2 5x + 12$ .
- 3. Simplify

$$\left(\frac{x^2}{y^2} - 1\right) \left(\frac{x}{x - y} - 1\right) + \left(\frac{x^3}{y^3} - 1\right) \left(\frac{x^2 + xy}{x^2 + xy + y^2} - 1\right)$$

4. Add together the fractions

$$\frac{4x-1}{3x^2-5x+2}, \quad \frac{x-2}{6x^2-x-2}, \quad \frac{3x+4}{1+x-2x^2}$$

5. Find the H.C.F. of

$$3x^3 + 7x^2 - 4$$
 and  $9x^3 - 19x + 10$ .

6. Solve the equation

$$x - \left(3x - \frac{2x+5}{10}\right) = \frac{1}{6}(2x+67) + \frac{5}{3}\left(1 + \frac{x}{5}\right)$$

Show that your solution satisfies the equation.

7. Find a fraction such that when I is added to its numerator its value is  $\frac{1}{3}$ , and when I is added to its denominator its value is  $\frac{1}{4}$ .

## HISTORY AND GEOGRAPHY.

#### MR. EXHAM.

# [Answer FIVE questions.]

1. Name in order the chief states and ports on the west coast of America, from Behring Straits to Cape Horn.

Note some of the chief railroads in North America.

- 2. Write a short geographical description of France, noting its eastern boundary and the part of Germany occupied by the Allies.
- 3. State what you consider to be the proper territorial adjustments to be made by the Peace Conference, and give your reasons.
- 4. Where are—Adelaide, Aleppo, Basra, Bloemfontein, Colombo, Delagoa Bay, Helsingfors, Herat, Fiume, Kingston, Lucknow, Luxor, Mosul, Formosa, Omsk, Prague, Samoa, Sumatra, Togoland, Tokio?
- 5. State what you know of—Constitutions of Clarendon, Clarendon Code, Act of Settlement, Statute of Praemunire, Provisions of Oxford, Edict of Nantes, Statute of Kilkenny, Poynings' Law, Court of Star Chamber, Treaty of Utrecht.
- 6. Indicate very briefly the chief stages in the growth and decline of Personal Government in England.
- 7. Note relations of England since 1800 with France, Italy, Greece, Russia, and Turkey.
- 8. Name the authors of—Canterbury Tales, Faerie Queene, Battle of the Books, Essay on Criticism, Vicar of Wakefield, In Memoriam, Utopia, The Pilgrim's Progress, The Wealth of Nations, The Origin of Species, Summa Theologiae; and note the importance of—Newton, Harvey, Copernicus, Hume, Gibbon.

## LATIN COMPOSITION.

#### DR. GOLIGHER.

Translate into Latin :-

- 1. His wisdom is greater than his valour.
- 2. There are some who think that the city will be captured in a few days.

- 3. I came to Dublin on the 22nd of January.
- 4. Marcus was so amiable that no one refused to obey his commands.
- 5. The ambassadors implored the Senate not to destroy their country.
- 6. Another time the scholar, meeting a physician, was ashamed, and tried to escape notice by hiding himself behind a tree. The physician, seeing him, asked, 'Why are you so ashamed that you hide yourself from me?' Have you secretly done anything wrong, and injured me?' He replied, 'In this only do I injure you, that for a long time I have not fallen ill of any disease, but continue to remain in perfect health.'

## FRENCH AND GERMAN.

#### PROFESSOR RUDMOSE-BROWN.

# 1. Translate into English :-

Either-

Le tigre est plus à craindre que le lion; celui-ci souvent oublie qu'il est roi; marchant d'un pas tranquille, il n'attaque jamais l'homme à moins qu'il ne soit provoqué; il ne précipite ses pas, il ne court, il ne chasse que quand la faim le pousse. Le tigre, au contraire, quoique rassasié de chair, semble toujours être altéré de sang; il saisitet déchire une nouvelle proie avec la même rage qu'il a exercée et non pas assouvie l'instant d'auparavant, en en dèvorant une première; il désole le pays où il habite; il ne craint ni l'aspect ni les armes de l'homme; il égorge, il dévaste les troupeaux d'animaux domestiques, met à mort toutes les bêtes sauvages, attaque lés petits éléphants, les jeunes rhinocéros, et même ose quelquefois braver le lion.

Or-

" Was wollt Ihr für das alte Bila? " fragte der Mann.

"," Ich habe es," entgegnete die Alte, ", vor vielen Jahren in einer Versteigerung für ein Geringes erkauft. Es mag wohl wohl nichts mehr wert sein, denn niemand hat es mir wieder abnehmen wollen, obgleich das alte Gesicht auf dem Bilde recht fromm und freundlich ausschaut. Gefällt es Euch, lieber Herr, so mögt Ihr selbst bestimmen, was Ihr mir dafür geben wollt. Ich bin mit jedem Gebote zufrieden."

Der Unbekannte legte einen spanischen Thaler auf den Tisch und griff nach dem Bilde. "Ach, lieber Herr," rief die Alte, "ich kann euch dieses Geldstück nicht wechseln, denn ich habe leider seit drei

Tagen nichts eingenommen."

" Lasst es nur gut sein, Mütterchen," versetzte der Unbekannte.

## 2. Translate into French :-

Towards the middle of the fourth century before our era, a navigator of Marseilles made a voyage to the north of Europe. He skirted the coasts of Gaul, entered the Channel, visited the southern and eastern

coasts of the island of Britain, and reached Thule, beyond which he was unable to sail, prevented as he was by thick fogs.

To skirt = longer Thule = Thulé (fem.). To sail = naviguer.

Or-

Translate into German :-

King Charles the Great was once beaten by the Saxons, and fled with his Franks to the Main. As, however, they could not find the ford, they were unable to pass over the river, in order to escape from their enemies. At that moment a hind appeared suddenly, went through the river, and showed them the way.

The Main = der Main.
The ford = die Furt.
The hind = die Hirschkuh.

#### ENGLISH COMPOSITION.

#### MR. KENNEDY.

Write an Essay on one of the following subjects :-

- I. The Peace Conference.
- 2. The Starry Heavens.
- 3. Contrast between City Life and Country Life.
- 4. The Pleasures of Reading.

# JUNIOR FRESHMEN.

#### GEOMETRY.

#### MR. W. E. THRIFT.

## Theoretical.

- 1. Show fully how to construct on a given right line a rectangle equal in area to a given triangle.
- 2. ABC is a triangle having the angle B obtuse, and CP is the perpendicular from the C on the base AB: prove that
  - (a)  $AC^2 = AB^2 + BC^2 + 2AB \cdot BP$ ,
  - (b)  $BC^2 = AB^2 + AC^2 2AB \cdot AP$ .
- 3. From a point P outside a circle two lines PAB and PT are drawn meeting the circle in the points A, B, and touching it in T respectively: prove that the rectangle under PA and PB is equal to the square on PT.
- 4. Prove that equiangular triangles have the sides about equal angles proportional.
- 5. Two triangles ABC and DEF have the angles B and E equal, and they are equal in area; what is the relation connecting the lengths of the sides about the equal angles?

Prove this relation.

- 6. If four straight lines are in proportion, and similar figures be described on the first and second, and similar figures be described on the third and fourth, prove that the four figures are also in proportion.
- 7. Show how to describe a figure that shall be equal in area to one rectilineal figure, and similar to another.

#### Practical.

8. In a line AB 6 centimetres in length find a point P such that  $AP^2 = AB \cdot PB$ .

Construct a square equal to the sum of the square on AB and the rectangle under AP and the sum of AB and AP.

- 9. Construct a triangle whose sides are 5.2 cm., 4.3 cm., and 3.4 cm. in length, and describe a circle to touch its three sides.
- 10. Construct a quadrilateral ABCD, whose sides AB, BC, CD, DA are respectively 4.9, 2.4, 2.4, and 3.5 centimetres in length, if the angle ABC is 60°.

Construct a square equal in area to the quadrilateral,

#### ALGEBRA AND ARITHMETIC.

MR. WEBB.

1. Solve the equation

$$\frac{x+4}{5} - \frac{4x-9}{35} = \frac{5x+1}{7} - 6,$$

and verify your answer.

2. Find to two places of decimals the values of x which satisfy

$$5x^2 - 9x - 3 = 0.$$

3. Find what number a must be if one root of the equation in x

$$\frac{2x-3}{x-4} - \frac{3x+a}{x} + 1 = 0$$

is x = 3.

4. Using the formula

$$P^2 - Q^2 = (P + Q)(P - Q)$$

find the four factors of

$$(a^2 + b^2 - c^2 - d^2)^2 - 4(ab + cd)^2$$
.

- 5. If the digits of a number of two digits are reversed, the new number is four-sevenths of the original. The digits differ by 4. Find the number.
  - 6. Simplify

$$(\sqrt{5-2})^3 + \frac{1}{(\sqrt{-}+2)^3}$$

7. Find x and y from the equations

$$\frac{x}{8} + \frac{x - y}{14} = 3$$

$$\frac{x+y}{6}-\frac{y}{2}=2,$$

and verify your answer.

- 8. Prove the rule for finding the greatest common factor of two numbers.
- 9. Find to the nearest penny the cost of 7 tons 6 cwt. 3 qrs. 17 lbs. at £2 15s. 9d. a ton.
- 10. I owe £100, due two years hence. I wish to pay this in three equal sums, one now, one a year hence, and one two years hence. What ought these sums to be if my creditor allows me 5 per cent. simple interest on money paid in advance?

LATIN.

MR. CANNING.

[All Candidates are to attempt either the Unprescribed Passage or the Latin Composition.]

Unprescribed Passage.

Quo, quo scelesti ruitis? Aut cur dexteris Aptantur enses conditi? Parumne campis atque Neptuno super Fusumst Latini sanguinis, Non ut superbas invidae Carthaginis Romanus arces ureret. Intactus aut Britannus ut descenderet Sacra catenatus via, Sed ut secundum vota Parthorum sua Urbs haec periret dextera? Neque hic lupis mos nec fuit leonibus. Numquam nisi in dispar feris. Furorne caecos an rapit vis acrior An culpa? Responsum date! Tacent, et albus ora pallor inficit, Mentesque perculsae stupent.

# For Latin Composition.

When Caesar had finished his speech, Cato replied as follows: 'I am far from being in agreement with those who have just put forward their opinions. They are discussing the penalties which are to be imposed on those who have taken up arms against the fatherland; but I think it is our duty to take precautions that we may not suffer any injury at their hands. Other crimes you may punish after they have been committed: unless you take measures to prevent the success of this crime, you will appeal to the laws in vain; if the State is overthrown, the conquered lose all. It is not now a question of tribute or wrongs of allies; our liberties and lives are in danger.

Translate: -

Ne forte credas interitura quae Longe sonantem natus ad Aufidum Non ante volgatas per artes Verba loquor socianda chordis:

Non, si priores Maconius tenet Sedes Homerus, Pindaricae latent Ceacque et Alcaei minaces Stesichorique graves Camenae.

Nec siquid olim lusit Anacreon Delevit actas; spirat adhuc amor Vivuntque conmissi calores Acoliae fidibus puellae. Non sola comptos arsit adulteri
Crines et aurum vestibus illitum
Mirata regalesque cultus
Et comites Helene Lacaena,
Primusve Teucer tela Cydonio
Direxit arcu; non semel Ilios
Vexata; non pugnavit ingens
Idomeneus Sthenelusve solus
Dicenda Musis proelia; non ferox
Hector vel acer Deiphobus graves
Excepit ictus pro pudicis
Coniugibus puerisque primus.

- 1. Parse-oredas, interitura, lusit, delevit, vivunt, arsit, mirata, direxit.
  - 2. Scan the first stanza.

## GREEK.

#### DR. GOLIGHER.

I. Translate:-

ἄμα δὲ καὶ Φαρνάβαζος, οὐ δυνάμενος συμμεῖξαι πρὸς τὸν Ἱπποκράτην διὰ τὴν στενοπορίαν, τοῦ ποταμοῦ καὶ τῶν ἀποτειχισμάτων ἐγγὺς ὅντων, ἀπεχώρησεν εἰς τὸ Ἡράκλειον τὸ τῶν Καλχηδονίων, οῦ ἢν αὐτῷ τὸ στρατόπεδον. ἐκ τούτου δὲ ᾿Αλκιβιάδης μὲν ἄχετο εἰς τὸν Ἑλλήσποντον καὶ εἰς Κερρόνησον χρήματα πράξων οἱ δὲ λοιποὶ στρατηγοὶ συνεχώρησαν πρὸς Φαρνάβαζον ὑπὲρ Καλχηδόνος εἴκοσι τάλαντα δοῦναι ᾿Αθηναίοις Φαρνάβαζον καὶ ὧς βασιλέα πρέσβεις ᾿Αθηναίων ἀναγαγεῖν, καὶ ὅρκους ἔδοσαν καὶ ἔλαθον παρὰ Φαρναβάζου ὑποτελεῖν τὸν φόρον Καλχηδονίους ᾿Αθηναίοις δὲ μὴ πολεμεῖν Καλχηδονίοις, ἕως ἃν οἱ παρὰ βασιλέως πρέσβεις ἔλθωσιν.

- Parse—συμμείξαι, ἄχετο, συνεχώρησαν, δοῦναι, ἀναγαγεῖν, ἔλαβον.
- 3. What do you know of-Pharnabazus, Hippocrates, Alcibiades?
- 4. Describe the trial of the generals after Arginusae.

#### FRENCH AND GERMAN.

[A separate answer-book to be used for each language.]

PROFESSOR RUDMOSE-BROWN.

1. Translate into English :-

Either -

## BEQUEME SCHIFFAHRT.

Ein Schiff wurde von Mannheim, den Neckar hinauf, nach Heidelberg gezogen. Ein Handwerksbursche ging denselben Weg und fragte: ,, Darf ich auch mit? Was muss ich geben?" Der Schiffsherr, der ein lustiger Patron war, antwortete: "Fünfzehn Kreuzer, wenn Ihr im Schiffe sitzen wollt. Helft Ihr aber mit ziehen, nur sechs. Euer Felleisen könnt Ihr in das Schiff werfen, sonst hindert es Euch nur."

Der Handwerksbursche fing an zu rechnen:—,, Fünfzehn Kreuzer,—sechs Kreuzer—sechs von fünfzehn bleibt neun."—Die neun Kreuzer, dachte er, kann ich verdienen.—,, Wenn's erlaubt ist!" sagte er und warf das Felleisen in das Schiff. Dann ergriff er eins von den Seilen, und zog so gut er konnte. "Wir kommen eher an Ort und Stelle," dachte er, "wenn ich nicht träge bin." In Heidelberg bezahlte er die sechs Kreuzer Fahrgeld—für die Erlaubnis mit zu ziehen, nahm sein Felleisen in Empfang und wanderte vergnügt weiter.

Or-

Le Prince héréditaire de Brunswick allait surprendre l'armée française près de Wesel. Le général français, qui se doute du dessein du prince, fait coucher son armée sous les armes; il envoie à la découverte, pendant la nuit, M. d'Assas, capitaine au régiment d'Auvergne. A peine cet officier a-t-il fait quelques pas, que des grenadiers ennemis, embuscade, l'environnent et le saisissent à peu de distance de son régiment. Ils lui présentent la baïonette, et lui disent que s'il fait du bruit, il est mort. M. d'Assas se recueille un moment pour mieux renforcer sa voix, il crie: 'A moi, Auvergne! voilà les ennemis!' il tombe aussitôt, percé de coups. Ce dévouement, digne des anciens Romains, aurait été immortalisé par eux. On dressait alors des statues à de pareils hommes: de nos jours, ils sont oubliés.

2. Translate into French or German:-

There is something to be said in favour of absolute monarchies. Once kings ruled. They gave their word and kept it. Now governments rule. They give their word and break it with impunity. It is possible to trust one man, but not many men. Crowds do not know what they want. Governments are like crowds: they want one thing to-day and another thing to-norrow. And the people have to suffer and pay for their caprices. The king spent his own money. Governments spend other people's money.

#### ENGLISH COMPOSITION.

MR. LUCB.

[Choose one subject.]

- 1. Chivalry.
- 2. Adventure.
- 3. Tennyson and war poetry.

# SPECIAL PRELIMINARY EXAMINATION FOR MEDICAL STUDENTS.

### GEOMETRY.

### MR. ROGERS.

- 1. A straight line falling on two parallel straight lines makes the alternate angles equal.
  - 2. If the angle ABC is obtuse, prove

$$AC^2 = AB^2 + BC^2 + 2AB \cdot BP$$

where CP is the perpendicular from C on AB produced.

- 3. On a given straight line describe a segment of a circle containing a given angle.
  - 4. In a given circle inscribe a triangle equiangular to a given triangle.
  - 5. What are similar rectilineal figures?

Prove that equiangular triangles are similar.

- Prove that a right-angled triangle may be divided into two triangles each similar to the whole.
- 7. Similar triangles are to one another in the duplicate ratio of their corresponding sides.

# Practical.

- 8. Construct a square containing 6 square inches without extracting a square root. Measure the length of its side.
- 9. The sides of a triangle are 400, 500, and 600 yards. Calculate to the nearest yard the distance from the middle point of the longest side to the opposite vertex.

Check your result by measurement on a figure drawn to scale.

10. Describe a circle having an area equal to the sum of the areas of two circles of radii 2 and 3 inches respectively.

#### ALGEBRA AND ARITHMETIC.

#### MR. WEBB.

1. Solve the equation

$$\frac{x+8}{3} - \frac{5x-6}{7} = 2x - 4 - \frac{100-4x}{4^2},$$

and verify your answer.

2. If 2s = a + b + c, express in terms of a, b, and c the result of multiplying together the four quantities

$$2s$$
,  $2(s-a)$ ,  $2(s-b)$ ,  $2(s-c)$ .

3. Find the H.C.F. of

$$4x^3 - x - 12$$
 and  $4x^4 + 2x^3 - 2x - 24$ .

- 4. A man is engaged to work by the week, and is paid sixpence an hour, and, in addition, as many farthings per hour as he does hours of work in the week. If one week his total wage is £3 12s., how many hours did he work that week?
  - 5. Find x, y, and z from the equations

$$3x - y + 5z = 17,$$
  
 $7x + 2y + 13z = 11.$ 

5x + y - 9z = 47.

6. Find what p must be if

$$(3p-5)x^2-42x+9$$

is a perfect square.

- 7. Justify the rule in Arithmetic for finding the Least Common Multiple of several given numbers.
- 8. Find to the nearest penny the cost of 17 tons 3 cwt. I qr. 22 lbs. at £1 10s. 6d. per ton.
- 9. Find to the nearest yard the length of the side of a square field whose area is 5 acres.
- 10. Find the amount of £5400 in 4 years at 4 per cent. compound interest.

### LATIN.

### MR. LUCE.

Translate:-

Caelo supinas si tuleris manus
Nascente Luna, rustica Phidyle,
Si ture placaris et horna
Fruge Lares avidaque porca;
Nec pestilentem sentiet Africum
Fecunda vitis nec sterilem seges
Robiginem aut dulces alumni
Pomifero grave tempus anno.
Nam quae nivali pascitur Algido
Devota quercus inter et ilices
Aut grassit Albanie in berbis

Devota quercus inter et ilices
Aut crescit Albanis in herbis
Victima, pontificum secures
Cervice tinget: te nihil attinet

Temptare multa caede bidentium Parvos coronantem marino Rore deos fragilique myrto.

HORACE.

- 1. Parse: -tuleris, placaris, tinget.
- 2. Give meaning of :-hedera, indoles, vitulus, fistula.

# For Latin Composition.

 The war continued for nearly five years, and then peace was concluded.

- 2. So many bodies were cast into the stream that the inhabitants of the town were not able to drink the water.
- 3. A screen of cavalry was thrown out by Labienus, that the infantry might not be caught on the march unprepared for action.
- 4. Train your own mind, that you may be able to heal the bodies of others.

#### GREEK.

### MR. TATE.

Κόνων δ' ἔφευγε ταῖς ναυσὶν εὖ πλεούσαις διὰ τὸ ἐκ πολλῶν πληρωμάτων εἰς ὀλίγας ἐκλελέχθαι τοὺς ἀρίστους ἐρέτας, καὶ καταφεύγει εἰς Μυτιλήνην τῆς Λέσβου καὶ σὺν αὐτῷ τῶν δέκα στρατηγῶν Λέων καὶ ἐΕρασινίδης. Καλλικρατίδας δὲ συνεισέπλευσεν εἰς τὸν λιμένα, διώκναν ναυσὶν ἔκατὸν καὶ ἐβδομήκοντα. Κόνων δὲ ὡς ἔφθη ὑπὸ τῶν πολεμίων κατακωλυθείς, ἡναγκάσθη ναυμαχῆσαι πρὸς ·ῷ λιμένι, καὶ ἀπώλεσε ναῦς τριάκοντα οἱ δ' ἄνδρες εἰς τὴν γῆν ἀπέφυγον τὰς δὲ λοιπὰς τῶν νεῶν, τετταράκοντα οἴσας, ὑπὸ τῷ τείχει ἀνείκκυσε. Καλλικρατίδας δὲ ἐν τῷ λιμένι ὁρμισάμενος ἐπολιόρκει ἐνταῦθα, τὸν ἔκπλουν ἔχων. καὶ κατὰ γῆν μεταπεμψάμενος τοὺς Μηθυμναίους πανδημεὶ καὶ ἐκ τῆς Χίου τὸ στράτευμα διεβίβασε · χρήματά τε παρὰ Κύρου αὐτῷ ἦλθεν.— Χεπορτιον.

- 1. Parse ἐκλελέχθαι, ἔφθη, ἀπώλεσε, ἀπέφυγον, διεβίβασε.
- 2. Give the meanings of ἐπιστολεύς, ἐπιβάτης, σφράγισμα, παραρρύματα, ὑπηρετικὸς κέλης, ἀποδικεῖν, ἀπὸ τοῦ αὐτομάτου.
  - 3. Give, with date, a short account of the battle of Arginusae.

#### FRENCH AND GERMAN.

### PROFESSOR RUDMOSE-BROWN.

### I. Translate into French or German :-

The next day they came to tell me that my father, having heard of my arrest, had come to see me; and they made me follow them below, thinking that this visit must give me pleasure. My poor father, whom my arrest had indescribably excited, was awaiting me in the office. As soon as he saw me he said to me, 'Calm yourself, Silvio; you have nothing to fear. I am not so rash as to hope that you will get out in two or three days; but you will soon be set free—in short, your imprisonment will not last a month. It seems to me I have persuaded the emperor that you have done nothing to expose you to the severity of the law; and I hope that he will soon vouchsafe to save you from prison.'

# 2. Translate into English :-

#### Either-

On a beauconp décrit, dans les journaux quotidiens et les publications diverses inspirées par la guerre, l'existence dans les tranchées. Ces

descriptions furent souvent outrancières, poussant les unes trop au noir et les autres au rose tendre. Tantôt la tranchée était un lieu d'enfer et de désespoir, tantôt au contraire on y jouissait de tout le confortable

moderne, de repas fins et d'inépuisables sujets de distraction.

L'exagération est égale des deux côtés. Nous ne suspectons pas d'ailleurs la bonne foi des narrateurs, mais ils ont eu tort de généraliser et d'étendre à tout le front ce qui s'était passé à leur connaissance, un certain jour, dans une tranchée.

Wie der Arzt es vorher gesagt hatte, so geschah es. Nach einigen Wochen konnte der Kranke das Bett und allmählich auch das Zimmer, ja sogar das Haus verlassen; nur bedurfte er dann, gleich seiner Schwester, eines Krückstockes, den er bisher verschmäht hatte.

Als es Sommer wurde, verlangte er aus der Stadt hinaus, und Frau Lina begleitete ihn mehrmals auf dem hohen Uferwege um die Bucht, von wo er nicht nur die Inseln, sondern oftwärts auch auf das freie Wasser sehen konnte. Da das Ufer an mehreren Stellen tief und steil gegen den Strand hinabfällt, so wagte man ihn hier nicht allein zu lassen und gab ihm zu andern Malen, wenn die Tochter keine Zeit hatte, einen der Arbeiter oder sonst eine andere sichere Person zur Seite.

— Auf den Sommer war der Herbst gefolgt, und es war um die Zeit, da Heinzens kurze Einkehr in das Elternhaus zum zweiten Mal

sich fährte.

### MR. R. M. GWYNN.

#### ENGLISH COMPOSITION.

Write an essay on one of the following subjects:-

- (a) The gipsy and Quentin Durward.
- (b) The French king in the castle of the Duke.
- (c) Pictures from Tennyson.

### SENIOR FRESHMEN AND SUPPLEMENTALISTS.

#### TRIGONOMETRY.

### MR. HARRY THRIFT.

1. Find the circular measure of  $6^{\circ}$  5′ 4″ to four places of decimals. Find the number of seconds in the angle subtended at the centre of a circle of radius 400 feet by an arc 1 foot long.

2. If 
$$\cos A = \frac{11}{61}$$
, and  $\sin B = \frac{9}{41}$ ,

find  $\cos{(A+B)}$ , assuming firstly that A and B are acute, and secondly that A is acute and B obtuse.

3. Find the value of

tan 315° - sin 120° cos 210° + sin 390° cos 300° + cot 495°.

4. Prove the identity

$$(\sec^2 A - \cos^2 A) (\csc^2 A - \sin^2 A) = 2 + \sin^2 A \cos^2 A.$$

- 5. Find without extracting the square roots of surds the value of sin 18° and cos 18°.
  - 6. In a plane triangle prove the formula

$$\tan \frac{A-B}{2} = \frac{a-b}{a+b} \cot \frac{C}{2}$$

7. In a plane triangle prove that

$$a + b + c = (b + c) \cos A + (c + a) \cos B + (a + b) \cos c$$
.

8. The sides of a triangle are 148, 104, 60 feet long. Find its area and the tangent of half its greatest angle.

- 9. How would an observer on land determine the distance between two ships at anchor?
  - 10. Given

$$L \tan 34^{\circ} = 9.8293$$
,  $\log 1863 = 3.2702$ ,  $\log 2743 = 3.4383$ ,

find 
$$\log \left[ \sqrt[3]{\frac{18.63}{2.743}} \times \tan^2 34^{\circ} \right]$$
.

### LOGIC.

### MR. JOHNSTON.

- 1. Define Genus and Species, and illustrate the relation that exists between them.
  - 2. State and prove the special rules of the Third Figure.
- 3. Reduce a syllogism in Camestres to the First Figure, and explain the process.

- 4. What is a Sorites? State and prove the special rules of the Sorites in the First Figure.
  - 5. Define a dilemma, and give a concrete example.
  - 6. Write a note on the logical bases of Induction.
  - 7. What are material fallacies? Illustrate.
- 8. Reduce to logical form and criticize the following argument:— 'No evil should be allowed that good may come of it: punishment is an evil; therefore punishment should not be allowed that good may come of it.'

### MECHANICS.

### MR. WEBB.

- 1. State and prove the principle known as the polygon of forces. If A, B, C, D, are the vertices in order of a quadrilateral, what is the resultant of forces represented by AB, BC, and CD?
- 2. Draw a sketch of any system of pulleys involving three movable ones, and prove the relation between the power and the weight raised.

Show that the work done by the power equals that done against gravity in raising the weight.

- 3. A ladder 13 feet long is kept in equilibrium on a smooth floor and against a smooth wall by a horizontal force applied to its lower end. Find the force if the ladder weighs 48 lbs. and its lower end is 5 feet from the wall.
- 4. Define the centre of gravity of a body. Out of a 6 foot square a circular hole of I foot radius is cut whose centre is on a diagonal and is I foot from the centre of the square. Find the centre of gravity of what is left.
- 5. A particle projected vertically upward returns to the ground in 10 seconds. Find the initial velocity and the greatest height attained.
- 6. A mass of 10 lbs. on a rough horizontal table  $(\mu = \frac{1}{h})$  is drawn along by a string passing over a smooth pulley at the edge and connected with a mass of 3 lbs. hanging freely. Find the acceleration of the system.
- 7. If the units of length, mass, and time were a yard, a stone, and a minute, by what numbers would a velocity of a foot per second and a force equal to a poundal be represented?
- 8. Explain why if a lift is quite shut in and moves perfectly smoothly you can tell whether your motion is being accelerated up or down, but cannot tell whether you are moving with uniform velocity or are at rest.
- 9. A wall is 100 feet high and is 200 feet away. I fire a shot so that the bullet just clears the wall, but goes no higher. What must the horizontal component of the velocity of the bullet have been?
- 10. Find the H.P. of an engine that will in 30 minutes empty a well full of water by pumping the water to the surface. The well is 200 feet deep and has an area of 33 square feet.

### LATIN.

### MR. LUCE.

[All Candidates are to attempt either the Unprescribed Passage or the Latin Composition.]

### Unprescribed Passage.

### Translate:

Verum ut ad te, Caecili, redeam, quam multa te deficiant vides, quam multa sint in te, quae reus nocens in accusatore suo cupiat esse, profecto iam intelleges. Quid ad haec dici potest? Non enim quaero, quid tu dicturus sis: video mihi non te, sed hunc librum esse responsurum, quem monitor tuus hic tenet: qui si te recte monere volet, suadebit tibi ut hinc discedas neque mihi verbum ullum respondeas. Quid enim dices? An id quod dictitas, iniuriam tibi fecisse Verrem? Arbitror; neque enim esset veri simile, cum omnibus Siculis faceret iniurias, te illi unum eximium, cui consuleret, fuisse.—Стевю.

# For Latin Composition.

Besides these evils, another, springing out of the long-continued wars betwixt the French and English, added no small misery to the distracted kingdom. Numerous bodies of soldiers, collected into bands, under officers chosen by themselves, from among the bravest and most successful adventurers, had been formed in various parts of France out of the refuse of all the other countries. These hireling combatants sold their swords for a time to the best bidder; and when such service was not to be had, they made war on their own account, seizing castles and towers, which they used as the places of their retreat—making prisoners, and ransoming them—exacting tribute from the open villages, and the country around them.

# Senior Freshmen Hilary.

### Translate:-

Sed, per deos immortales! vos ego appello, qui semper domos, villas, signa, tabulas vestras pluris quam rempublicam fecistis: si ista, cuius-cumque modi sunt, quae amplexamini, retinere, si voluptatibus vestris otium praebere vultis, expergiscimini aliquando, et capessite rempublicam. Non agitur de vectigalibus, neque de sociorum iniuriis: libertas et anima nostra in dubio est. Saepenumero, Patres conscripti, multa verba in hoc ordine feci; saepe de luxuria atque avaritia nostrorum civium questus sum, multosque mortales ea caussa adversos habeo. Qui mihi atque animo meo nullius unquam delicti gratiam fecissem, haud facile alterius lubidini malefacta condonabam. Sed, ea tametsi vos parvi pendebatis, tamen respublica firma erat; opulentia negligentiam tolerabat.—Sallust.

- 1. Parse: amplexamini, questus sum, expergiscimini.
- 2. Give the meaning of: vecordia, intempesta nocte, ferentarius, desidia.
  - 3. Write a note on the tribunicia potestas.

For Final Freshman Supplementalists.

Translate:-

Tum pater Anchises, lacrimis ingressus obortis:
Onate, ingentem luctum ne quaere tuorum;
Ostendent terris hunc tantum fata, neque ultra
Esse sinent. Nimium vobis Romana propago
Visa potens, Superi, propria haec si dona fuissent.
Quantos ille virum magnam Mavortis ad urbem
Campus aget gemitus! Vel quae, Tiberine, videbis
Funera, quum tumulum praeterlabere recentem!
Nec puer Iliaca quisquam de gente Latinos
In tantum spe tollet avos; nec Romula quondam
Ullo se tantum tellus iactabit alumno.
Heu pietas, heu prisca fides, invictaque bello
Dextera! Non illi se quisquam impune tulisset
Obvius armato, seu quum pedes iret in hostem,
Seu spumantis equi foderet calcaribus armos.

VIRGIL.

- I. Parse-obortis, sinent, praeterlabere, tollet.
- 2. Scan the first five lines.

GREEK.

MR. CANNING.

(For Senior Freshmen.)

Translate:-

ἐπεὶ ὧν ἀπίκατο ἐς τὰς ᾿Αθήνας πάντες οὖτοι πλην Παρίων (Πάριοι δὲ ὑπολειφθέντες ἐν Κύθνω ἐκαραδόκεον τὸν πόλεμον κῆ ἀποβήσεται), οἱ δὲ λοιποὶ ὡς ἀπίκοντο ἐς τὸ Φάληρον, ἐνθαῦτα κατέβη αὐτὸς Εέρξης ἐπὶ τὰ νέας, ἐθέλων σφι συμμίζαί τε καὶ πυθέσθαι τῶν ἐπιπλωόντων τὰς γνώμας. ἐπεὶ ὁ ἀπικόμενος προῖζετο, παρήσαν μετάπεμπτοι οἱ τῶν ἐθνέων τῶν σφετέρων τύραννοι καὶ ταξίαρχοι ἀπὸ τῶν νεῶν, καὶ ἴζοντο ὡς σφι Βασιλεὺς ἐκάστω τιμὴν ἐδεδώκεε, πρῶτος μὲν ὁ Σιδώνιος βασιλεὺς, μετὰ δὲ ὁ Τύριος, ἐπὶ δὲ ὧλλοι. ὡς δὲ κόσμω ἐπεξῆς ἴζοντο, πέμψας Εέρξης Μαρδόνιον εἰρώτα, ἀποπειρώμενος ἐκάστου, εἰ ναυμαχίην ποιέοιτο.—
Η Εποποτις.

- Parse—ἀπίκατο, αποβήσεται, συμμίξαι, πυθέσθαι, παρῆσαν, ἐδεδώκεε, εἰρώτα, ποιέοιτο.
- 2. Give the meanings of  $-\ell\rho\hat{\eta}\mu$ ος, κονιορτός, δλοίτροχος, πλήρωμα,  $\ell\nu\theta$ εῦτεν, στεινός, αμφορεύς, ρεῦμα.
  - 3. Give a brief account of Themistocles.

(For Final Freshman Supplementalists.)

Translate :-

ὧς άρα τις εξπεσκε καὶ οὐτήσασκε παραστάς.
τὸν δ' ἐπεὶ ἐξενάριξε ποδάρκης δῖος 'Αχιλλεύς,
στὰς ἐν 'Αχαιοῖσιν ἔπεα στερόεντ' ἀγόρευεν
'' ὧ φίλοι, 'Αργείων ἡγήτορες ἦδὲ μέδοντες,

έπεὶ δὴ τόνδ' ἄνδρα θεοὶ δαμάσασθαι ἔδωκαν, δε κακὰ πόλλ' ἔρρεξεν, ὅσ' οὐ σύμπαντες οἱ ἄλλοι, εἰ δ' ἄγετ' ἀμφὶ πόλιν σὺν τεύχεσι πειρηθώμεν, όφρα κέ τι γνώμεν Τρώων νόον, ὅν τιν' ἔχουσιν, ἡ καταλείψουσιν πόλιν ἄκρην τοῦδε πεσόντος, ἢε μένειν μεμάασι καὶ Ἔκτορος οὐκέτ' ἐόντος. ἀλλὰ τί ἡ μοι ταῦτα φίλος διελέξατο θυμός; κεῖται πὰρ νήεσσι νέκυς ἄκλαυτος ἄθαπτος Πάτροκλος. τοῦ δ' οὐκ ἐπιλήσομαι, ὄφρ' ὰν ἐγώ γε ζωοίσιν μετέω καὶ μοι φίλα γούνατ' ὀρώρη. εἰ δὲ θανόντων περ καταλήθοντ' εἰν ἰλίδαο, αὐτὰρ ἐγὼ καὶ κεῖθι φίλου μεμνήσομ ἐπαίρου. νῦν δ' ἄγ' ἀείδοντες παιήονα, κοῦροι ᾿Αχαιῶν, νηνοιν ἔπι γλαφυρῆσι νεώμεθα τόνδο δ' ἄγωμεν.''

HOMER

- l'arse—ξδωκαν, ξρρεζεν, πειρηθώμεν, γνώμεν, πεσόντος, ξόντος, νήεσσι, επιλήσομαι.
- 2. Give meanings of -αργυρόπεζα, κλισίη, ἐντυπάς, πείρινθα, ζυγόδεσμος, αἰετός.
- 3. Give the substance of Priam's appeal to Achilles for the body of Hector.

### FRENCH AND GERMAN.

#### PROFESSOR RUDMOSE-BROWN.

I. Translate into English :--

Einen neuen gewaltigen Anstoss erhielt die allgemeine Bewegung durch den Einbruch der Hunnen, eines mongolischen Reitervolkes, das die Ostgoten unterwarf und durch seinen Angriff die christichen Westgoten veranlasste, im römischen Reiche Schutz zu suchen. Als das letztere dann nach dem Tode des Kaisers Theodosius in eine östliche und eine westliche Hälte auseinanderfiel, erhoben sich die Westgoten unter dem König Alarich und begehrten die Abtretung einer römischen. Provinz. Sie erhielten Illyrien und richteten nun ihre Angriffe gegen

das weströmische Reich.

Um Italien gegen die dringendste Gefahr zu schützen, sah sich Stilicho, der leitende Staatsmann des Kaisers Honorius, endlich genötigt, die römischen Legionen aus Gallien herbeizurufen. Diese Massregel aber war das Signal für die im Rücken von den Hunnen bedrängten germanischen Stämme jenseit des Rheines, über die von Verteidigern entblösste Grenze in die wehrlosen römischen Provinzen einzubrechen.

Or-

Un homme d'assez grande taille, au nez et au regard d'oiseau de proie, s'avança vers nous. C'était le médecin en chef. Le tour d'André ne tarda pas à arriver.

'Et celui-là, qu'est-ce qu'il a?' demanda le docteur, en examinant

mon frère. Je répondis pour André: 'Il a en une balle dans la poitrine, mais elle a été retirée, hier soir, au lazaret des Allemands. — Donc, rien de pressé, reparti le docteur. Qu'on le monte là-

haut!'

Aussitôt dit, aussitôt fait; deux infirmiers s'emparèrent de mon frère, et je les vis tous les trois disparaître dans le couloir qui menait aux ateliers de la filature transformée en ambulance. Comme je me disposais à les suivie, je me sentis saisir par le bras, tandis que la voix criarde du docteur me possit cette question: 'Eh bien! mais! et vous, qu'est-ce que vous avez?

- Moi, je n'ai rien, je ne suis là que pour soigner mon frère.'

2. Translate into French or German :-

Every evening he went for a walk through the deserted streets. It was useless to stay in the house. He had no fire and no coal to make one. He had nothing to eat, and no money to buy anything. If he had had any, he couldn't have bought anything with it. For all the shops were shut, and the noise of guns filled the air of the city. The enemy was near at hand.

### DUTCH.

#### DR. GOLIGHER.

1. Translate into Dutch :-

A poor old soldier used to play on the violin every evening in the public gardens of a great city. Beside him sat his faithful dog, holding in his mouth his master's cap, for the coppers of the passers-by. One evening the poor man, who was bowed down with age, was sadly grieved. No one had stopped to listen to his music. There was not a single coin in his cap. He sat down on a stone and covered his face with his hands. Just then a gentleman came up to him, and taking pity on the poor old man, he said: 'Let me play on your violin a little while.' He then tuned it with great care, and added, 'While I play, you will take the money.'

2. Translate into English :-

(a) Het voorspook loog niet. Wilde vlagen
En holle vloeden beukten 't schip;
Het stiet en brijzelde op een klip
En splinterde, uit elkaar geslagen.
De golven kaatsten met het want;
't Geflenterd zeildoek woei in 't ronde;
Het wrak ging, volgeplast, te gronde
En 't lijk des vissehers dreef aan land.
Zij weende niet. Zij kon niet weenen;

Die laatste laafnis in den rouw
Was niet gegund aan de arme vrouw:
Zij staarde droogoogs om zich henen.
Als marmer koud en stervensbleek,
Kwam ze in haar stulpje 's avonds weder,
En zat in doffe mijmring neder,
Tot weer de lange nacht verstreek.

H. TOLLENS Cz.

(b) Hij was een vischtuigmaker van beroep. Hengels en simmen, haakjes en dobbertjes hebben wij bij menigte in zijn winkeltje gekocht, of ook wel, zoo arm als hij was, om Gitje'swil van hem ten geschenke gekregen. Wij wisten destijds niet, dat hij werkelijk in bekrompen omstandigheden verkeerde; integendeel, wij hielden hem voor een man in goeden doen. Was zijn magazijntje niet volgeladen met een benijdenswaardigen overvloed van vischgereedschap? Watertandden wij niet hij het zien van zijne rottinghengels, zijne schakels en schepnetjes, zijne nagemaakte paardevliegen, torren, en ander kunstaas? Kenden wij kostbaarder of sierlijker voorwerpen ter aarde, dan zijne pierenbakjes van geschiiderd blik, bestemd om aan een lederen riem schuins over de borst gedragen te worden, zooals de patroontasschen van cavalerie-officieren?

### ENGLISH COMPOSITION.

MR. R. M. GWYNN.

Write an essay on one of the following subjects :-

# (For Senior Freshmen.)

- 1. The different types of friend.
- 2. Hastings and Nuncomar.
- 3. Hampden and Charles.

(For Senior Freshman Trinity Supplementalists.)

- 1. Quiet Heroism.
- 2. The towns of England in the latter half of the seventeenth century.

# (For Final Freshman Supplementalists.)

- 1. Women and Richard.
- 2. The gentle and the savage humourist.

## JUNIOR SOPHISTERS.

#### MATHEMATICAL PHYSICS.

#### MR. WEBB.

1. Masses  $m_1$ ,  $m_2$ , &c., are lifted, respectively, through heights  $h_1$ ,  $h_2$ , &c., and thereby their centre of gravity is raised a height H.

Prove that the work done in lifting the masses is the same as would be required to lift a mass equal to their sum a height H.

- 2. A uniform beam, 13 feet long, is placed leaning against a smooth wall, its bottom resting on a rough floor at a distance of 5 feet from the wall. Find the coefficient of friction between beam and floor if the beam is about to slip.
- 3. Find the uniform force which must act for 5 seconds on a mass of 10 lbs. in order to change its velocity from one of 24 miles per hour W. to E. to one of 32 miles per hour S. to N.
- 4. A mass of 7 lbs. is put on a rough inclined plane, whose length is 61 and height 11. The coefficient of friction is  $\frac{1}{12}$ . It is connected by a string passing over a smooth pulley at the top of the plane with a mass of 2 lbs., hanging freely. Will the system move from rest? If so, how and with what acceleration?
- 5. Prove that if a ray strikes a thin lens nearly perpendicularly at a distance a from the axis, its deviation will be approximately

$$(\mu - 1) a \left(\frac{1}{r} - \frac{1}{r'}\right)$$
.

6. Describe the compound microscope. Show how its magnifying power is calculated.

[Extra marks will be given if the formula for magnifying power is obtained.]

- 7. Show that in a homogeneous liquid at rest the pressure is the same at all points in a horizontal plane, and that the free surface is horizontal.
- 8. A cubical box without a lid weighs 125 lbs. in water, and measures 36 inches inside. It is placed mouth downwards in water. At what depth will it just be in equilibrium if the height of the water barometer is 29\frac{1}{3} feet?
- 9. When gold, silver, and an alloy of the two are weighed in water, they are found to lose, respectively, 4, 2, 1, 1 of their weight. In what ratio are the gold and silver mixed in the alloy?

#### GREEK.

#### MR. KENNEDY.

I. Translate-

"Ανδρες στρατιῶται 'Αθηναίων τε καὶ τῶν ἄλλων ξυμμάχων, ὁ μὲν ἀγὼν ὁ μέλλων ὁμοίως κοινὸς ἄπασιν ἔσται, περί τε σωτηρίας καὶ πατρίδος ἔκάστοις οὐχ ἦσσον ἢ τοῖς πολεμίοις: ἢν γὰρ κρατήσωμεν νῦν ταῖς ναυσίν, ἔστι τω τὴν ὑπάρχουσάν που οἰκείαν πόλιν ἐπιδεῖν. ἀθυμεῖν δὲ οὐ χρὴ οὐδὲ πάσχειν ὅπερ οἱ ἀπειρότατοι τῶν ἀνθρώπων, οὶ τοῖς πρώτοις ἀγῶσι σφαλέντες ἔπειτὰ διὰ παντὸς τὴν ἐλπίδα τοῦ φόβου ὁμοίαν ταῖς ξυμφοραῖς ἔχουσιν. ἀλλ' ὅσοι τε 'Αθηναίων πάρεστε, πολλῶν ἤδη πολέμων ἔμπειροι ὄντες, καὶ ὅσοι τῶν ξυμμάχων, ξυστρατευόμενοι ἀεί, μνήσθητε τῶν ἐν τοῖς πολέμοις παραλόγων, καὶ τὸ τῆς τύχης κὰν μεθ' ἡμῶν ἐλπίσαντες στῆναι καὶ ὡς ἀναμαχούμενοι ὰξίως τοῦδε τοῦ πλήθους, ὅσον αὐτοὶ ὑμῶν αὐτῶν ἐφορᾶτε, παρασκευάζεσθε.—ΤΗUCYDIDES.

- 2. Parse-τω, ἐπιδεῖν, σφαλέντες, μνήσθητε, στῆναι, ἀναμαχούμενοι.
- 3. Give the meanings of φρυγανισμός, ταρσοί, μετέωρος, διάβροχος, διαθίξαι, κολυμβηταί.
  - 4. (a) ἄνδρες γὰρ πόλις, καὶ οὖ—— Complete the sentence.
- (b) What two reasons are mentioned by Thucydides why some were anxious that Nicias should be put to death?

LATIN.

DR. GOLIGHER.

[A.]

[Candidates should attempt either the Unprescribed Passage or the Latin Prose Composition.]

# Unprescribed Passage.

Profecto Brixellum Othone honor imperii penes Titianum fratrem, vis ac potestas penes Proculum praefectum; Celsus et Paulinus, cum prudentia eorum nemo uteretur, inani nomine ducum alienae culpae praetendebantur; tribuni centurionesque ambigui, quod spretis melioribus deterrimi valebant; miles alacer, qui tamen iussa ducum interpretari quam exequi mallet. Promoveri ad quartum a Bedriaco castra placuit, adeo imperite, ut quamquam verno tempore anni et tot circum anuibus penuria aquae fatigarentur. Ibi de proelio dubitatum, Othone per litteras flagitante ut maturarent, militibus ut imperator pugnae adesset poscentibus: plerique copias trans Padum agentes acciri postulabant. Nec perinde diiudicari potest, quid optimum factu fuerit, quam pessimum fuisse quod factum est.—Tacritus.

### For Latin Proso.

As soon as the consul had reached the opposite bank, an ambuscade set by Vettius Scato attacked him, and slew him and eight thousand of his men. Their bodies, floating down the river, told Marius what had happened. Like the good soldier that he was, he promptly crossed and seized the enemy's camp. This disaster happened on the 11th of June, 90 B.C., and caused great consternation in Rome. But at Rome small merit was now discerned in any success gained by the veteran general, and Caepio, who had opposed Drusus and was therefore a favourite with the equites, was made joint commander in the north. It was a foolish choice. The prudence of Marius and a victory over the Peligni gained by Sulpicius were neutralised by the new general's rashness.—Beesly.

## [B.]

### I. Translate :-

Ceterum animorum provinciae prudens, simulque doctus per aliena experimenta parum profici armis, si iniuriae sequerentur, causas bellorum statuit excidere. A se suisque orsus primum domum suam coercuit, quod plerisque haud minus arduum est quam provinciam regere. Nihil per libertos servosque publicae rei, non studiis privatis nec ex commendatione aut precibus centurionem militesve ascire, sed optimum quemque fidissimum putare. Omnia scire, non omnia exsequi. Parvis peccatis veniam, magnis severitatem commodare; nec poena semper, sed saepius paenitentia contentus esse; officiis et administrationibus potius non peccaturos praeponere, quam damnare cum peccassent.—Tactrus.

- 2. Translate, with explanatory notes :-
- (a) Sors quaesturae provinciam Asiam, pro consule Salvium Titianum dedit.
- (b) Formam totius Britanniae Livius veterum, Fabius Rusticus recentium eloquentissimi auctores oblongae scutulae vel bipenni adsimulavere.
- (c) Ego facilius crediderim naturam margaritis deesse quam nobis avaritiam.
- (d) Tam caeca et corrupta mens assiduis adulationibus erat, ut nesciret a bono patre non scribi heredem nisi malum principem.
- 3. Show your acquaintance with the speech which Tacitus puts into the mouth of Calgacus.

### FRENCH AND GERMAN.

### PROFESSOR RUDMOSE-BROWN.

### 1. Translate into French or German :-

Heads were still filled with memories of warfare, and hearts with the spirit of revolt. The men of the new generation, descendants of the warriors of the civil and religious wars, endowed with the vigour and love of action of their fathers, unaccustomed as yet to industry and commerce and for the most part quite unlettered, yearned for the merry days of independence and adventure of the late sixteenth century and looked around for an outlet to their energy. From 1610 to 1624 they found it in minor agitations, in internal dissensions, till Richelieu set himself the task of turning the vitality of these fiery spirits into useful channels by inaugurating another struggle with the House of Austria.

# 2. Translate into English: -

Either:

L'inspiration du romancier (stupete, gentes!) dans Quatre-vingt-treize est plus monarchique que révolutionnaire, et l'on dirait, si on ne connaissait pas la versatilité de l'âme des poètes, que c'est là une espèce d'amende honorable faite, par un républicain dégoûté de ses républiques,

aux pieds encore absents d'une monarchie qu'il sent venir!

Et, en effet, il s'agit de Quatre-vingt-treize, n'est-ce pas? et, chose particulière, il n'y a pas, dans ce Quatre-vingt-treize, le grand événement de Quatre-vingt-treize, celui-là qui data la révolution française: la mort du roi, ce crime sans pareil dans les annales de la France, et qui décapita la France! ce crime incomparable dans les annales du monde, parce qu'il tua à travers un homme le principe qui fait vivre les nations, — le principe d'autorité! . . . On n'en parle que pour mémoire. On en dit deux mots en passant, et c'est tout. Et quels mots! deux mots puérils, et traînés partout, sur la veste blanche du roi et la couleur du fiacre qui le porta à l'échafaud. C'est que, au fond, le Quatre-vingt-treize de la Révolution et de la Convention est bien moins la visée du livre de Victor Hugo que le Quatre-vingt-treize de la Vendée et de la Chouannerie, placées toutes deux sous ce titre charlatanesque de Quatre-vingt-treize tout court, par un auteur qui n'ose pas rompre, du premier coup, avec les siens!

Or-

Es will weniger ein Bild der einzelnen Literaturwerke geben, als vlelmehr die leitenden Gedanken, die sich in der literarischen Entwickuing ausprägen, zur Darstellung bringen. Und zwar wird diese literarische Entwicklung im Zusammenhang mit dem englischen Nationalcharakter zu verstehen und zu erklären gesucht. In seinem Vorwort betont der Verfasser ausdrücklich, dass er nicht die Geschichte der englischen Literatur, sondern die Literargeschichte des englischen Volkes zu schreiben beabsichtige. Ueber diesen Punkt wird noch in anderem Zusammenhange zu reden sein. Hier sei nur noch kurz folgendes bemerkt: Jusserand's Buch ist geistreich, brillant geschrieben, durch seine lichtvollen Ausblicke in die anderen Gebiete des englischen Kulturlebens immer fesselnd und interessant. Es liegt in der Natur der Sache, dass das eigentlich literarische Element gegenüber den völkerpsychologischen Betrachtungen etwas in den Hintergrund tritt. Doch fehlt es dem Verfasser keineswegs an Ursprünglichkeit und Sicherheit des literarischen Urteils.

#### LOGIC.

### MR. ROGERS.

1. What does Mill mean by 'inference in the proper acceptation of the term'?

Show by examples what he means by inferences that are 'apparent, not real.'

- 2. (a) What is 'the logical maxim on which all ratiocination is said to be founded'?
  - (b) Why does Mill object to it?
  - (c) By what two principles would he replace it?
- 3. (a) Explain Mill's saying, 'All inference is from particulars to particulars.'
  - (b) How does he show that 'brutes reason'?
- 4. (a) What is the general form of the (a) simpler and (b) more complex 'trains of reasoning'?
  - (b) Give an example of each.
  - 5. What is Whewell's theory of induction?
  - 6. (a) What is the cause of a phenomenon according to Mill?
  - (b) Is day the cause of night, and if not, why not?
  - (c) Can a cause be simultaneous with its effect?

### EXPERIMENTAL PHYSICS.

### MR. W. E. THRIFT.

1. Explain what is meant by compressive stress and by shearing stress.

Describe how to measure the compressibility of a gas.

2. Define a rise in temperature of one degree on the Centigrade scale of temperature.

Explain how temperatures may be measured by an air thermometer.

- 3. Describe how to measure the coefficient of linear expansion of a solid for rise in temperature.
- 4. Define the 'latent heat' of liquefaction of a substance, and describe how to measure it for ice.
  - 5. Explain the action of freezing mixtures and freezing machines.

### CHEMISTRY.

#### DR. YOUNG.

1. How may hydrogen peroxide be prepared? What is the action of hydrogen peroxide on (a) lead sulphide, (b) hydriodic acid, (c) potassium permanganate acidified with sulphuric acid?

- 2. Two litres of ammonia gas, measured at 0°C. and 760 m.m. are passed over heated copper oxide. Calculate the volume of nitrogen and the weight of water formed.
- 3. How would you prepare (a) hydrobromic acid, (b) bromine, from potassium bromide? Compare the properties of bromine with those of iodine.
- 4. What experiments would you carry out in order to determine the equivalent of a metal such as magnesium?
- 5. Describe all the methods you can think of by which oxygen may be obtained from atmospheric air.

### HISTORY.

### MR. CURTIS.

# (Attempt five questions.)

- 1. What elements of permanence and union were there in the Roman Empire?
  - 2. Trace the progress of the Christian Church from 313 to 800.
  - 3. In what does the importance of Charles the Great consist?
- 4. Trace the various stages in the history of the Holy Roman Empire up to 1500.
  - 5. What is meant by calling the Middle Ages the 'Ages of Faith'?
  - 6. What were the final results of the Hundred Years' War?
- 7. Write on either the Valois Dukes of Burgundy or the Swiss Confederation.
  - 8. Discuss the effects of the Renaissance upon painting and poetry.

#### ENGLISH COMPOSITION.

### MR. ALTON.

# [Choose ONE subject.]

- I. Johnson's merits and defects as a writer.
- 2. Constitutional Monarchy.

# SENIOR SOPHISTERS AND SUPPLEMENTAL DEGREE EXAMINATION.

### MATHEMATICAL PHYSICS.

### MR. H. THRIFT.

- I. A uniform beam, 10 feet long, weighing 20 lbs., is supported in a horizontal position by two props placed at distances of 3 feet from each end. Weights of 5, 7, 9, 11 lbs. are suspended at distances of 2, 4, 6, 8 feet from one end. Find the pressures on the props.
- 2. Forces equal to the weights of 6,  $2\sqrt{3}$ ,  $4\sqrt{3}$ , 2 lbs. act at a point, the angle between the first and second being 30°, between second and third 120°, and between third and fourth 90°, all the angles being measured in the same direction. Find the magnitude and direction of their resultant.
- 3. A mass of 6 lbs. resting on a smooth inclined plane, inclined to the horizon at an angle of 30°, is connected by a light string passing over a smooth pulley at the top of the plane to a mass of 4 lbs. hanging vertically. Write down for each mass the equation that determines its motion, and calculate the tension of the string.
- 4. A bullet of mass 2 oz., moving with a velocity of 1300 feet per second, strikes against a target of mass 21 lbs., in which it embeds itself. If the target is free to move, find the difference between the original and final kinetic energy of the system.
- 5. A shot fired from a gun inclined to the horizon at an angle of 15°, trikes the ground again at a horizontal distance of 4800 yards. Find, the velocity with which the shot leaves the gun.
- 6. The upper side of a sluice gate is 15 feet below the surface of the water. Its dimensions are 3 feet vertical by 4 feet horizontal. Find the total pressure on it and the pressure per sq. in. at the top.
- 7. A specific gravity bottle weighs 47 grammes. When filled with water it weighs 143 grammes, and when filled with oil it weighs 123.8 grammes; 135 grammes of a powder are introduced into it, and it is again filled with oil, and weighs 208.8 grammes. Find the sp. gr. of oil and powder.
- 8. A glass hydrometer weighted with mercury having its stem uniformly graduated reads 0 in water and 10 in a liquid of sp. gr. 1.2. What is the sp. gr. of a liquid in which it reads 20?
- Prove that the deviation of a ray of light falling at nearly perpendicular incidence on a thin prism is constant.
- 10. Find the magnifying power of an astronomical telescope the focal length of whose object-glass is 10 feet and eye-glass \(\frac{1}{2}\) inch for a person whose distance of distinct vision is 8 inches.

### ASTRONOMY.

#### MR. RUSSELL.

[Full marks may be obtained by good answers to any SIX questions.]

- 1. Describe a transit instrument, and explain how it is adjusted. Explain also the use of the collimator.
- 2. The sextant depends on an elementary geometrical property. Prove it. Describe accurately how the sextant is constructed, and how you would actually manipulate it so as to get the apparent altitude of a star.
- 3. A ship is moving in a dangerous region, and the S.O.S. may have to be sent out at any time, indicating the position. What facts should the astronomer on board have at his disposal, and how would they have been ascertained?
- 4. Considerable knowledge of the chemical constituents of the heavenly bodies exists. Give a short sketch of the method of obtaining the information.
- 5. Define the expression equation of time, and give illustrations of the practical use made of it.
- 6. There are various causes that make the apparent direction of a star different from its real direction. Name them, and explain how the correction for one of them is made. In naming the causes, it should be indicated how the direction is affected.
- 7. The periodic time of a very distant planet—say Neptune—is a very long interval. How is the periodic time actually found?
  - 8. Explain the Lunar method of finding longtitude.
  - 9. State Kepler's Laws, and deduce the following:
- If S' be the mass of a star and its satellite, R' their distance apart, T' their periodic time, and S, R be similar quantities for the Sun and Earth, then

$$\frac{S'}{S} = \frac{R'^3}{R^3 T^2}.$$

The annual parallax of Sirius is approximately 0".4, its satellite is about 8" distant from it, and the periodic time is 52 years. Are there sufficient facts to compare the masses of the Sirius combination with the Sun?

### GREEK.

### DR. GOLIGHER.

# (For Senior Sophisters.)

I. Translate: --

ἐν παντὶ δὴ συνεχεῖ καὶ διαιρετῷ ἔστι λαβεῖν τὸ μὲν πλεῖον τὸ δ' ἔλαττον τὸ δ' ἴσον, καὶ ταῦτα ἡ κατ' αὐτὸ τὸ πρᾶγμα ἡ πρὸς ἡμᾶς· τὸ δ' ἴσον μέσον τι ὑπερβολῆς καὶ ἐλλείψεως. λέγω δὲ τοῦ μὲν πράγματος

μέσον τὸ ἴσον ἀπέχον ἀφ' ἐκατέρου τῶν ἄκρων, ὅπερ ἐστὶν ἐν καὶ τὸ αὐτὸ πᾶσιν, πρὸς ἡμᾶς δὲ ὁ μήτε πλεονάζει μήτε ἐλλείπει τοῦτο δ' οὐχ ἔν, οὐδέ ταὐτὸν πᾶσιν. οἷον εἰ τὰ δέκα πολλὰ τὰ δὲ δύο ὀλίγα, τὰ ἔξ μέσα λαμβάνους ικατὰ τὸ πρᾶγμα ' τοφ γὰρ ὑπερέχει τε καὶ ὑπερέχεται τοῦτο δὲ μέσον ἐστὶ κατὰ τὴν ἀριθμητικήν ἀναλογίαν. τὸ δὲ πρὸς ἡμᾶς ὁὐχ οὕτω ληπτέον οὐ γὰρ εἴ τῷ δέκα μναῖ φαγεῖν πολὺ δύο δὲ ὀλίγον, ο ἀλείπτης ἔξ μνᾶς προστάξει ἔστι γὰρ ἴσῶς καὶ τοῦτο πολὺ τῷ ληψομένῷ ἡ ὀλίγον. Μίλωνι μὲν γὰρ ὀλίγον, τῷ δὲ ἀρχομένῷ τῶν γυμνασίων πολύ. ὁμοίως ἐπὶ δρόμου καὶ πάλης.— ΑπΙΕΤΟΤΙΕ.

- 2. Is Aristotle to be justly accused of recognizing a merely quantitative distinction between Virtue and Vice?
- 3. (a) έξ οδ και δήλον ὅτι οὐδεμία τῶν ἡθικῶν ἀρετῶν φύσει ἡμῖν ἐγγίνεται. Give the proof.
- (b) το μέν οὖν κατὰ τον ὀρθον λόγον πράττων κοινὸν καὶ ὑποκείσθω. Translate.
- (c) διὸ καὶ δρίζονται τὰς ἀρετὰς ἀπαθείας τινὰς καὶ ἤρεμίας. Translate, with an explanatory note.

# (For Trinity Supplementalists.)

### I. Translate :-

έν δὲ ταῖς στρατηγίαις εὐδοκίμει μάλιστα διὰ τὴν ἀσφάλειαν, οὕτε μάγης έγούσης πολλήν άδηλότητα καὶ κίνδυνον έκουσίως άπτόμενος, οὕτε τους έκ του παραβαλέσθαι χρησαμένους τύχη λαμπρά και θαυμασθέντας ώς μεγάλους (ηλών και μιμούμενος στρατηγούς, αεί τε λέγων πρός τους πολίτας, ώς όσον ἐπ' αὐτῷ μενοῦσιν ἀθάνατοι πάντα τὸν χρόνον. δρῶν δέ Τολμίδην τὺν Τολμαίου διὰ τὰς πρότερον εὐτυχίας καὶ διὰ τὸ τιμᾶσθαι διαφερόντως έκ των πολεμικών σύν οὐδενί καιρώ παρασκευαζόμενον είς Βοιωτίαν εμβαλείν και πεπεικότα των εν ήλικία τους άρίστους και φιλοτιμοτάτους έθελοντί στρατεύεσθαι, χιλίους γενομένους άνευ της άλλης δυνάμεως, κατέχειν ἐπειρατο καὶ παρακαλεῖν ἐν τῷ δήμω, τὸ μνημονευόμενον είπων, ως εί μη πείθοιτο Περικλεί, τόν γε σοφώτατον ούχ άμαρτήσεται σύμβουλον αναμείνας χρόνον. τότε μεν οδν μετρίως εὐδοκίμησε τοῦτ' εἰπών. ὀλίγαις δ' ὕστερον ἡμέραις, ὡς άνηγγέλθη τεθνεώς μὲν αύτος Τολμίδης περί Κορώνειαν ήττηθείς μάχη, τεθνεώτες δέ πολλοί κάγαθοί των πολιτών, μεγάλην τουτο τώ Περικλεί μετ' εὐνοίας δόξαν ήνεγκεν, ως ανδρί φρονίμω και φιλοπολίτη. - PLUTARCH.

- 2. Give Plutarch's references in his Life of Pericles to Ephorus, Duris, and Thucydides.
- 3. From where, and in what connexion, does Plutarch make the following quotations?—
  - (a) πάλαι γὰρ αὐτὸ λόγοισι προάγει Περικλέης, ἔργοισι δ' οὐδὲ κινεῖ.
  - (b) Σαμίων δ δημός έστιν ως πολυγράμματος.
  - (σ) βασιλεῦ Σατύρων, τί ποτ' οὐκ ἐθέλεις δόρυ βαστάζειν ;
- 4. Write down the fellowing words, with their meanings: -ψιλως, χύδην, χολή, φορεΐον, ὑπογράφειν.

# (For Degree Candidates.)

### I. Translate :-

άρ οὖν τοῖς ποιηταῖς ἡμῖν μόνον ἐπιστατητέον καὶ προσαναγκαστέον την του άγαθου εἰκόνα ήθους έμποιείν τοίς ποιήμασιν ή μη παρ' ήμίν ποιείν, ή και τοις άλλοις δημιουργοίς επιστατητέον και διακωλυτέον το κακόηθες τοῦτο καὶ ἀκόλαστον καὶ ἀνελεύθερον καὶ ἄσγημον μήτε ἐν εἰκόσι ζώων μήτε ἐν οἰκοδομήμασι μήτε ἐν ἄλλω μηδενὶ δημιουργουμένω έμποιείν, ή ὁ μὴ οδός τε ὢν οὐκ ἐατέος παρ' ἡμίν δημιουργείν, Ίνα μὴ ἐν κακίας εἰκόσι τρεφόμενοι ἡμῖν οἱ φύλακες ὅσπερ ἐν κακῆ βοτάνη, πολλά έκάστης ήμέρας κατά σμικρον άπο πολλών δρεπόμενοι τε καί νεμόμενοι, έν τι ξυνιστάντες λανθάνωσι κακόν μέγα έν τῆ αὐτῶν ψυχῆ· ἀλλ' ἐκείνους (ητητέον τους δημιουργούς τους ευφυώς δυναμένους ίχνεύειν την του καλοῦ τε καὶ εὐσχήμονος φύσιν, Ίν' ἄσπερ ἐν ὑγιεινῷ τόπφ οἰκοῦντες ο νέοι ἀπὸ παντός ὡφελῶνται, ὁπόθεν ἃν αὐτοῖς ἀπὸ τῶν καλῶν ἔργων ἢ προς όψιν ή προς ακοήν τι προσβάλη, ώσπερ αύρα φέρουσα από γρηστών τόπων ύγίειαν, καὶ εὐθὺς ἐκ παίδων λανθάνη εἰς ὁμοιότητά τε καὶ φιλίαν καὶ ξυμφωνίαν τῷ καλῷ λόγω ἄγουσα : Πολὺ γὰρ ἄν, ἔφη, κάλλιστα οὕτω TOUDELEV. -PLATO.

- 2. Give the context of the following:-
- (a) γελοΐον γὰρ τόν γε φύλακα φύλακος δεῖσθαι.
- (δ( πολιτικόν, έφη, λέγεις 'Ασκλήπιον.
- (c) οὐκ ἐτός, ἔφη, πάλαι ἢσχύνου τὸ ψεῦδος λέγειν.
- 3. Summarise Plato's discussion of the forms of poetry, and their uses in the ideal State.

LATIN.

MR. LUCE.

(For Senior Sophisters.)

Translate :-

Pervertunt homines ea, quae sunt fundamenta naturae, quum utilitatem ab honestate seiungunt. Omnes enim expetimus utilitatem, ad eamque rapimur, nec facere aliter ullo modo possumus. Nam quis est. qui utilia fugiat? aut quis potius, qui ea non studiosissime persequatur? Sed quia nusquam possumus nisi in laude, decore, honestate utilia reperire, propterea illa et prima et summa habemus; utilitatis nomen non tam splendidum, quam necessarium ducimus. Quid est igitur, dixerit quis, in iurciurando? num iratum timemus Iovem? At hoc quidem commune est omnium philosophorum, non eorum modo, qui deum nihil habere ipsum negotii dicunt, nihil exhibere alteri: sed eorum etiam, qui deum semper agere aliquid et moliri volunt, numquam nec irasci deum nec nocere. Quid autem iratus Iupiter plus nocere potuisset, quam nocuit sibi ipse Regulus? Nulla igitur vis fuit religionis, quae tantam utilitatem praeverteret. An ne turpiter faceret? Primum, minima de malis. Num igitur tantum mali turpitudo ista habebat, quantum ille cruciatus? Deinde illud etiam apud Accium,

Fregistín fidem?

Neque dedi neque do infideli cuiquam, quamquam ab impio rege dicitur, luculente tamen dicitur.—Cicero.

- 1. Explain the construction in this passage of the verbs:—fugiat, dixerit, praeverteret, faceret.
- 2. Give the meaning of: -comitas, sicae, supplantare, veterator, simulatio, dissimulatio.
- 3. What did the Stoics mean by the following terms:—'convenienter naturae vivere,' 'media officia,' 'rectum'?
  - 4. Explain the ethical significance of the fable of Gyges.

# (For Degree Candidates.)

Translate: -

Ne perconteris, fundus meus, optime Quincti, Arvo pascat herum, an baccis opulentet olivae, Pomisne, an pratis, an amieta vitibus ulmo, Scribetur tibi forma loquaciter et situs agri. Continui montes, ni dissocientur opaca Valle, sed ut veniens dextrum latus adspiciat Sol, Laevum discedens curru fugiente vaporet. Temperiem laudes. Quid, si rubicunda benigni Corna vepres et pruna ferant? si quercus et ilex Multa fruge pecus, multa dominum iuvet umbra? Dicas adductum propius frondere Tarentum. Fons etiam rivo dare nomen idoneus, ut nec Frigidior Thracam nec purior ambiat Hebrus, Infirmo capiti fluit utilis, utilis alvo. Hae latebrae dulces, etiam, si credis, amoenae, Incolumem tibi me praestant Septembribus horis.

HORACE.

- 1. Explain the construction of adspiciat and dieus in the above passage.
- 2. Give the meaning of the following:—toral, vivaria, clitellas, petorrita, plateae, hirudo.
  - 3. What description of himself does Horace give?
- 4. Complete the quotations, and explain with reference to the context-

(a) Rusticus expectat . . .

(b) Quidquid delirant . . .

5. What rules for tragedy does Horace lay down?

FRENCH AND GERMAN.

PROFESSOR RUDMOSK-BROWN.

(For Degree Candidates.)

1. Translate into English :-

Either.

Puisque je viens d'écrire le nom de Hugo, je crois intéressant d'examiner un peu quelles furent ses relations avec Lamartine.

Ils se connurent en 1822, à Paris, chez le duc de Rohan, mousquetaire, puis prêtre. Les Méditations venaient d'être publiées avec le succès

que l'on sait; les Odes et Ballades allaient paraître. Les deux poètes, pourtant si différents, s'apprécièrent, et lorsque Lamartine retourna peu après à Mâcon, ils échangèrent des lettres où se balancent de larges encensoirs.

Hugo aurait voulu enrôler Lamartine dans le cénacle romantique et publier de ses vers dans la revue qu'il venait de fonder : la Muse française. Lamartine refusa, tout en écrivant à Hugo qu'ils étaient 'frères en poésie, en doctrine et en religion.' Cependant il mandait, à la même époque, à M. de Genoude que les doctrines préconisées par la Muse française, c'était 'le délire au lieu du génie.' Pour bien montrer sa pensée, mentionnons qu'il ajoutait:

La sottise suffisante de leurs risibles adversaires (les classiques) va faire prévaloir quelques jours ce bizarre système; mais amis et ennemis disparaîtront bientôt et les deux absurdités rivales, en s'écroulant, feront place à la vérité en littérature: vérité dans les sentiments et

sûreté dans l'expression.

Peut-être Lamartine ne visait-il, dans ces lignes, que les exagérations de l'école nouvelle; mais c'était tout de même rejeter nettement l'alliance que Hugo lui avait proposée dans les vers célèbres:

Montés au même char, comme un couple homérique, Nous tiendrons, pour lutter dans l'arène lyrique, Toi la lance, moi les coursiers . . .

Or.

Der erste griechische Dichter, der uns die Prometheussage überliefert hat, ist Hesiod. Er berichtet sie zweimal, in den , Werken und Tagen ' und in der , Theogonie,' mit der ganzen Einfachheit und Naivität des antiken Epikers. Kern und Grundgedanke des Mythus sind bei ihm bereits ausgebildet, aber noch ohne jede symbolische Bedeutung, lediglich als ein Beitrag zur poetischen Welterklärung. Die Art und Weise, wie Hesiod erzählt, lasst darauf schliessen, dass die Sage den damaligen Griechen durchaus geläufig war. Die Personen werden nicht im geringsten eingeführt, sondern gleich handelnd dargestellt : sie sind dem Leser genau bekannt. Der Inhalt dieser ältesten Überlieferung ist etwa der: Prometheus, der Sohn des Japetos, hat irgendwann und irgendwie einmal den Zeus betrogen. Zeus rächt sich dafür, indem er den Menschen das Feuer entieht. Prometheus, der Inbegriff aller Schlauheit und Listen, stiehlt es ihm wieder in einem ausgehöhlten Rohre. Dafür rächt sich Zeus zum andern Male durch die Aussendung der Pandora mit ihrem unheilvollen Gafäss. Prometheus selber wird an einen wilden Felsen geschmiedet, wo ihn tagtäglich ein Adler heimsucht und ihm die Leber zerfleischt, bis endlich Herakles kommt und seinen Qualen ein Ende macht.-Der sinn der Sage ist nach Hesiods eigenem Ausspruch der, dass niemand sicht ungestraft wider die Oberhoheit des Zeus auflehnt.

#### 2. Translate into French or German :-

Although unaware of the identity of the authors of 'Little Jack Horner' and countless other nursery rhymes, I am prepared to accord them posthumous honours, not, perhaps, the laurels of the poet, but those of the psychologist and the educationalist, whatever concrete four these may be held to take. They grasped two bedrock facts which no student of the child-mind can afford to ignore—namely, that youth

demands a story, and that story fittingly told. Edward Canning paid, unconsciously no doubt, a tribute to such rhymesters in his admirable satire on Literary Criticism, where he dissects after the manner of reviewers those lines telling of Her Majesty of Hearts and her fateful baking which proved the downfall of the Knave of that ilk. For Canning, humorously but surely, gets at the fact that the 'poem' is a complete epic, fulfilling all the demands of its class as regards persons and action.

### PSYCHOLOGY.

### MR. JOHNSTON.

[Candidates for Degree will do any eight, Senior Sophisters any five, questions.]

- 1. 'The limits of the self coincide for a time with the limits of the organism.' Explain.
- 2. What light has Vivisection thrown on the relations between Mind and Body?
- 3. What is meant by saying 'Our sensuous percepts are results of "unconscious inferences"?
- 4. How is 'the independence of the feeling-elements as contrasted with other conscious elements' proved?
- 5. 'The threshold of consciousness is not always at the same level.' Explain and illustrate.

  6. 'Since feeling is so deeply and securely rooted in consciousness.
- Since feeling is so deeply and securely rooted in consciousness, all far-reaching mental development requires time.'

Explain this statement, and show its educational and political importance.

- 7. Distinguish Voluntary and Involuntary attention.
- 8. 'Memory is concerned so soon as a state of pleasure or pain persists.' What follows from this with regard to the relation between Cognition and Feeling?
- 9. What is the psychological explanation of the pleasure derived by children and savages from deafening music?
- to. 'An activity of the will is present not least in the retention of the connexion between our ideas and in all thought.' Explain and illustrate.

### ETHICS.

#### MR. ROGERS.

[Full marks will be given for answering six questions.]

- Discuss the relation between (a) pleasure and good, and (b) between subjective and objective good.
- 2. What was Plato's theory of the connexion between individual and social good?

# SEN. SOPHS. AND SUPPLEMENTAL DEGREE EXAMINATION. IXXVII

- 3. (a) How does Aristotle define Moral Virtue?
- (b) Sketch his analysis of Courage.
- 4. Discuss the practicability of creating a 'new international psychology' with a view to establishing a League of Nations based on the 'friendship of the world.'
- 5. For three reasons Hobbes' system is important in the history of Ethics?
  - 6, (a) What are Hutcheson's three 'calm determinations'?
  - (b) How are they to be united?
- 7. Describe and criticise Kant's theory of the relation between Virtue and Happiness.
  - 8. (a) What is the character of the moral ideal, according to Green?
  - (b) In what two directions has the ideal developed?

### POLITICAL AND ECONOMIC SCIENCE.

### MR. BASTABLE.

### $\lceil A. \rceil$

### (For Senior Sophisters only.)

- 1. 'The Act of 1832 . . . . was one of the great landmarks of English history.' Explain and illustrate this statement. In what sphere of action was the influence of the reformed House of Commons most marked?
- 2. Compare the position of the Speaker of the House of Commons with that of the Speaker of the House of Representatives in the United States. How do you account for the differences in function of the two offices?
- 3. 'In modern societies . . . saving is not of the character of hoarding.' Comment on this statement in such a way as to bring out clearly the difference between 'saving' and 'hoarding.' How far is it true to say that saving involves abstinence on the part of the saver?

### [B.]

# (For Senior Sophisters and Degree Candidates.)

- 4. What is the source from which (under the conditions of modern industry) wages are paid? Contrast the 'Wage-fund' and the 'Produce' theories in their explanation of this question.
- 5. On what grounds may the right of expropriation by the State be based? Consider the principles on which compensation for such expropriation should be given,
- 6. Indicate the use of (a) the Cabinet, (b) the party system in maintaining the House of Commons as an *organized* body. What significance do you find in the phrase 'His Majesty's opposition'?

[c.]

## (For Degree Candidates only.)

- 7. What is the proper office of a representative assembly? In what respects is Parliament defective as a legislative organ? Notice some suggested remedies.
- 8. Consider the use of the House of Lords as (a) a revising chamber, (b) a place for ministers, (c) a centre of independent criticism.
- 9. 'Notes considered as part of currency ought under any circumstances to be instantly convertible.'

How does Nicholson develop this proposition? Consider its application to the actual currency system of the United Kingdom.

 $\lceil \mathbf{p}. \rceil$ 

## (For Trinity Supplementalists.)

- 10. Explain the following:—limping standard; rapidity of circuation; nominal par of exchange; indirect tax; quasi-rent.
- 11. What is the relation of normal value to (a) cost value, (b) market value?
- 12. What do you understand by 'the social function of taxation'? How far does present British taxation perform this function?
- 13. Comment carefully on the proposition that 'Governments are not made, but grow.' Consider in particular the case of the English Constitution.
- 14. What, according to Mill, are the constituent elements of nationality? How does he deal with the cases of (a) Belgium, (b) Italy, (c) Switzerland?
- 15. 'The classification of functionaries should correspond to that of subjects.' Show the application of this proposition to the arrangement of the departments of the executive government.

EDUCATION.

MR. HENRY.

For Senior Sophisters.

[ Answer four questions.]

- 1. Account for and criticize the attitude of early Christian educators towards the existing pagan learning.
- 2. What were the educational ideals of monasticism and chivalry respectively? Indicate points of similarity to modern thought.
  - 3. Describe the origin of the university or the English public school.

- 4. What are the objections to making (a) culture, (b) the development of moral character, the ultimate aim in teaching?
- 5. Note the chief mental characteristics of adolescence, and show how they influence educational method.
- 6. What are the most important hygienic requirements for the secondary-school pupil?
- 7. What part should constructive manual work occupy in the curriculum of either boys or girls aged 12-14?

## For Degree Candidates.

# [Questions 4, 5, and the following.]

- 8. Examine carefully how Herbart's psychology led him to his chief educational doctrines.
- Trace the controversies with regard to the teaching of (a) religion,
   science, in English schools during the nineteenth century.
- 10. Describe the various methods of reconciling education through interest and education through effort.
- 11. Show how modern educational theories can be applied to the teaching of reading and writing.
- 12. What are the chief benefits to be derived from a study of (a) Latin composition, or (b) empirical geometry?

# For Trinity Supplementalists.

- 13. Trace in detail the contributions of (a) Milton, (b) Comenius, to the progress of educational thought.
- 14. Discuss the various meanings of Nature in the Emile, and estimate how far Rousseau's ideal is (a) theoretically desirable, (b) practically attainable.
- 15. Distinguish as clearly as you can between the functions of the physician and the educator in assisting child development.
- 16. Explain how the faculties of rational thought and sense-observation can be of mutual service.
- 17. How would you aid a child in forming (a) the scientific, (b) the philosophic, world-view?
- 18. Indicate the functions and the limitations of purely deductive development in the teaching of any subject in which you are interested.

### MR. R. M. GWYNN.

### ENGLISH COMPOSITION.

Write an essay on one of the following subjects:-

# (For Senior Sophisters.)

- 1. Franklin's methods of obtaining influence over his fellow-men.
- 2. The amusements and social life of the Borough.
- 3. Franklin and England.

# (For Trinity Supplementalists.)

- 1. Utopia and war.
- 2. Carlyle's tests of a Hero.

# (For Degree Supplementalists.)

- 1. The battle of Philippi, and the last scene in the tent of Brutus.
- 2. The old Colonial system and the new.

# Trinity Term, 1919.

### ENTRANCE EXAMINATION.

### APRIL.

### ARITHMETIC.

### MR. WEBB.

- 1. Reduce 2 cwt. 3 qrs. 3 lb. 8 oz. to the decimal of a ton.
- 2. Add 9.946, 034, 12.3, without reducing the decimals to vulgar fractions.
- 3. A watch loses 50 seconds every 24 hours. It is set right at noon on April 1st. When by the watch it is 3 p.m. on April 21st what, to the nearest second, is the right time?
- 4. Find, by Practice, to the nearest penny the cost of 6 tons I cwt. 2 qrs. 24 lb. at £3 16s. 9d. per cwt.
- 5. There are at present two principal kinds of War Loan, one paying 5 per cent. less income tax, the other 4 per cent. free of income tax.
- If a man has to pay income tax at the rate of 5s. in the £, and sells £2000 stock of the former loan at 95, and buys the latter at 102, find the change in his net income.
- 6. Find to 2 places of decimals the weight in grammes of 1 c.c. of a plate of iron which is 137 centimetres long, 643 millimetres wide, 43.1 millimetres thick, and weighs 277.54 kilogrammes.
- 7. How much will it cost to line an open cistern with lead costing £2 16s. per cwt. if 1 lb. of lead is used for every 18 square inches? The dimensions of the cistern are  $12\frac{3}{4}$  feet long,  $8\frac{1}{4}$  broad, and  $6\frac{1}{2}$  feet deep.

### ALGEBRA.

### MR. H. THRIFT.

1. Simplify the expression

$$\frac{1}{3} \left\{ a - 4 \left( 3b - 2a \right) \right\} - \frac{5}{2} \left[ \frac{1}{5} \left( b - \frac{a}{2} \right) - \frac{1}{3} \left\{ \frac{3}{2} a - \frac{3}{4} \left( 4b - \frac{4a}{5} \right) \right\} \right].$$

2. Divide  $3x^4 + 5x^3y + 2x^2y^2 + xy^3 + y^4$  by  $3x^2 - xy + y^2$ .

- 3. Find the H. C. F. of  $a^3 2a 4$  and  $a^3 a^2 4$ .
- 4. Find the factors of

$$a^{2}(b-c)+b^{2}(c-a)+c^{2}(a-b).$$

5. Add together the fractions

$$\frac{2x+1}{2x^2-7x+3}$$
;  $\frac{2x-3}{2x^2+7x-4}$ ;  $\frac{5-2x}{x^2+x-12}$ .

6. Solve the equation

$$\frac{x-3}{2} + \frac{7}{2x} = 2 + \frac{2x-7}{4}.$$

7. The total number of marbles owned by two boys A and B is 95. If A had 20 less and B 5 less, they would each have the same number. How many had each?

### LATIN COMPOSITION.

### MR. CANNING.

- 1. The enemy advanced by forced marches to the river Rhine, but being defeated in a great battle they retired with all speed, laying waste the country behind them.
- 2. He lived for three years with his friends at Rome; in the fourth year he returned to his native land.
- 3. Cicero hoped that Caesar would not be victorious in Gaul, for he was afraid that if he returned in safety with a victorious army he would overthrow the aristocratic party.
  - 4. It is plain that Catiline does not repent of his crimes.
- 5. He never addressed his fellow-citizens without imploring them to come to the aid of their suffering country.
- 6. The enemy retreated so quickly that our cavalry were unable to overtake them.

### FRENCH AND GERMAN.

### PROFESSOR RUDMOSE-BROWN.

### 1. Translate into English .-

Als er den andern Tag sich wieder einsand und Fröben sehon vor dem Gemälde traf, trat er auch hinzu mit recht freundlichem Gesicht; als aber der junge Mann ehrerbietig auf die Seite wich, um dem alten Herrn den bessern Platz einzuräumen, verbeugte sich dieser höflich grüssend und sprach: "Wenn ich nicht irre, Sennor, so hab' ich Sie schon mehreremale vor diesem Gemälde verweilen sehen—Da geht es Ihnen wohl gleich mir; auch mir ist dieses Bild sehr interessant und ich kann es nie genug betrachten."

Fröben war überrascht durch diese Anrede; auch ihm waren die Besuche des Alten vor dem Bilde aufgefallen, er hatte erfahren, wer jener sei, und nach der steifen, kalten Begrüssung von gestern war er dieser freundlichen Anrede nicht gewärtig. "Ich gestehe, mein Herr!" erwiderte er nach einigem Zögern, "dieses Bild zieht mich vor allen andern an; denn—weil—es liegt etwas in diesem Gemälde, das für mich von Bedeutung ist."

Or-

La vieille dame ne répondit pas. Elle tenait ses yeux fixés sur le vitrage de la boutique, comme si un objet effrayant y eût été dessiné.

—Qu'as-tu, citoyenne? demanda le maître du logis, qui reparut aussitôt.

Le citoyen pâtissier tira la dame de sa rêverie en lui tendant une petite boîte de carton couverte en papier bleu.

- Rien, rien, mes amis, répondit-elle d'une voix douce.

Elle leva les yeux sur le pâtissier comme pour lui jeter un regard de remercîment; mais, en lui voyant un bonnet rouge sur la tête, elle laissa échapper un cri:

- Ah! vous m'avez trahie!

La jeune femme et son mari répondirent par une geste d'horreur qui fit rougir l'inconnue, soit de les avoir soupçonnés, soit de plaisir.

2. Translate into French or German :-

I close the door and you are gone. As I return to books and work I wonder whether you will be content merely to remember this one short story. Or will you note my friend's address and visit him one day—reminding him that you once met him at my house. Probably you will postpone the call indefinitely: if so, I hope you have enjoyed the tea.

# ENTRANCE EXAMINATION.

### MIDSUMMER.

### ARITHMETIC.

### MR. W. E. THRIFT.

- 1. Find, by Practice, the cost (to the nearest penny) of 37 cwt. 3 qrs. 22 lbs. at £3 12s. 6d. a cwt.
  - 2. Find to two places of decimals the value of

# -029 × 3.14 × .54

- 3. Find the sum to which £1,125 will amount in four years at 5 per cent. per annum, Compound Interest.
- 4. If £1 is worth 29.45 francs, and 1 metre is equal to 39.37 inches, find (to the nearest penny) the cost per mile of a substance sold at 250 francs per kilometre.

- 5. A room is 16 ft. 9 in. long, 13 ft. 3 in. broad, and 12 ft. 6 inhigh: find the cost of papering its walls with paper 2 ft. 6 in. wider costing 3s. 4d. per lineal yard.
  - 6. Find the square root of 752.4049.
- 7. Find the change in income that results from selling £5,000  $2\frac{1}{2}$  per cent. Consols at  $55\frac{1}{4}$ , and investing the proceeds in 4 per cent. Stock at 85.

### ALGEBRA.

### MR. H. THRIFT.

1. Simplify the expression

$$\frac{\left(\frac{a^2}{b} + \frac{b^2}{a}\right) (a^3 - b^3)}{(a^2 - b^2) (a^4 + a^2b^2 + b^4)}.$$

- 2. Divide  $6x^4 13x^3 + 33x^2 28x + 30$  by  $2x^2 3x + 5$ .
- 3. Simplify

$$\frac{1}{x^2 - x - 6} + \frac{2}{x^2 - 4x + 3} + \frac{1}{x^2 + x - 2}$$

- 4. Find the H. C. F. of  $6x^3 + x^2 + 18$  and  $4x^3 x + 12$ .
- 5. Solve the equation

$$\frac{2x-3}{4} - \frac{x-7}{6} = 1 - \frac{3x-8}{9}.$$

6. Solve the equations 3

$$3x - 4y = 33,$$
  
 $5x + 6y = -2.$ 

7.  $\boldsymbol{A}$  is twice as old as  $\boldsymbol{B}$ , and 22 years ago he was three times as old as  $\boldsymbol{B}$ . What is  $\boldsymbol{A}$ 's age?

#### HISTORY AND GEOGRAPHY.

### MR. EXHAM.

# [Answer six questions.]

1. What events led up to the Norman conquest of England? What traces survive of the Roman occupation? What was the treaty of Widmore?

- 2. Give a very short account of the origin and the principal stages in the growth of the British Parliament.
- 3. Name the sovereigns of England who contributed most to legislation, giving instances.
- 4. Note the period and circumstances of the chief additions to the territory of the British Empire.

- 5. Describe the boundaries and chief geographical features of Russia.
- 6. Name and indicate the position of the chief lakes (a) in North America, (b) in Africa.
- 7. Say what you know of the territorial readjustments proposed in the forthcoming treaty of peace, and the reasons for the same.
- 3. Where are—Helsingfors, Heligoland, Kingston, Lassa, Aix la Chapelle, Aix les Bains, Zurich, Oregon, Yeddo, Perim, Agra, Agram, Mozambique, Singapore, Sarawak?

### LATIN COMPOSITION.

### DR. GOLIGHER.

Translate into Latin :-

- I. I wonder why you are joyful.
- 2. We must do whatever the general commands.
- 3. While the consuls were engaged in collecting a second army, a messenger arrived and informed them that the city had been captured.
- 4. Being asked why he had refused to visit the ancient city of Athens, he declined to answer.
  - 5. I paid Maecenas 10,000 sesterces on the 20th of March.
- 6. When he read this letter he concealed the state of affairs and declared that Clive would come quickly to their support, and would arrive at the fort within three days: meanwhile there was nothing to fear: there were supplies enough for two months, and in their strongly built fort they could hold off any number of the Indians.

#### FRENCH AND GERMAN.

#### PROFESSOR RUDMOSE-BROWN.

1. Translate into English

Either,

Le roi s'approcha de l'inconnue et vit au travers du velours deux grands yeux noirs dont le regard mélancolique le surprit et le charma.

'Beau masque,' lui dit-il, 'ta place n'est point ici. Elle est dans cette foule ardente et curieuse qui cherche le prince pour se disputer son sourire et son cœur. Là-bas, il y a une couronne à gagner, ne le sais-tu pas?'

'Je n'y prétends rien,' répondit le domino d'une voix grave et douce. 'Jouer à ce jeu de hasard, c'est risquer de prendre le valet pour le roi. J'ai le cœur trop fier pour courir cette chance.'

'Mais si je te montrais le prince?'

'Que lui dirais-je?' reprit l'inconnue; 'je n'aurais plus le droit de blâmer sans offense ni de louer sans flatterie.'

'Tu en penses donc beaucoup de mal?'

'Non. Un peu de mal et beaucoup de bien ; qu'importe ?'

Après ces mots, le domino ouvrit son éventail et retomba dans sa rêverie.

Or,

Dort auf der Ofenbank sass der Müller mit Fridolina und Leodegar, und sie flüsterten leise miteinander im Scheine des Lichtleins, das vor ihnen stand. Wie glücklich sahen sie aus! So hatte sie ja Mann und Kind immer haben wollen und mit aller Gewalt daran gearbeitet und nichts erreicht als Unzufriedenheit, Jammer und Not.

Und jetzt sassen sie da, in einer Glorie der Glückseligkeit, und keines

von ihnen dachte an sie.

Die Müllerin fuhr sich heftig mit der Hand zum Herzen. Hier sass ein Schmerz, so scharf und heiss, dass er ihr fast gar den Atem benahm. Allein sie tat einen tapfern Schluck und ging auf Leodegar zu und reichte ihm die Hand mit den Worten: "In Gottes Namen, seid glücklich!"

### 2. Translate into French:-

After the battle of Dettingen the English, though they had gained the victory, retired from the battlefield and had not time to remove their wounded. Accordingly Lord Stair wrote a letter to the French commander, recommending the English wounded to his generosity. The Marshal replied that the French would care for the English wounded as if they had been their own countrymen. And they did so.

### ENGLISH COMPOSITION.

### MR, R. M. GWYNN.

Write an essay on one of the following subjects :-

- (a) Some great American Presidents.
- (b) A soldier's return to civil life.
- (c) The habits of birds.
- (d) Is progress an illusion?

# JUNIOR FRESHMEN SUPPLEMENTING HILARY EXAMINATION.

GEOMETRY.

MR. FRY.

### Constructions.

[Take as unit of length a centimetre or a half-inch, and state which unit you adopt.]

- 1. On a line 4 units in length construct a rectangle equal in area to a triangle whose sides are 5, 6, and 7 units in length.
- 2. Construct geometrically a third proportional to, and a mean proportional between, two lines whose lengths are 2 and 3 units.
- 3. On a line 3 units in length construct all the possible triangles whose sides are in the ratio 3:4:5.

### Theoretical.

- 4. If two triangles have two sides of the one equal respectively to two sides of the other, but the included angle of the one greater than the included angle of the other, prove that the third side of the one is greater than the third side of the other.
- 5. Prove geometrically that the square on the difference of two lines is less than the sum of the squares on the lines by twice the rectangle under the lines.
- 6. If a straight line touches a circle, and from the point of contact a straight line is drawn dividing the circle into two segments, prove that the angles made by the last line with the tangent are equal to the angles in the alternate segments.
- 7. If two triangles have two sides of the one proportional to two sides of the other, and the angles opposite a pair of homologous sides in each equal, prove that the angles opposite the other pair of homologous sides are either equal or supplementary.
- 8. If two equiangular parallelograms are equal in area, prove that their sides are reciprocally proportional.
- 9. Prove that similar polygons can be divided up into the same number of similar triangles, and that the areas of the polygons are in the duplicate ratio of their homologous sides.
- 10. Prove that any rectilinear figure on the base of a right-angled triangle is equal in area to the sum of the areas of the similar figures similarly described on the sides containing the right angle.

MR. H. THRIFT.

I. Add together the fractions

$$\frac{3x+1}{6x^2-11x+3}, \frac{x+3}{2x^2+x-6}, \frac{3x+5}{2-5x-3x^2}.$$

- 2. Find the H.C.F. of  $3x^4 + 10x^3 + 18x + 5$  and  $9x^4 x^2 + 18x 20$ .
- 3. Find to two places of decimals the roots of  $5x^2 17x 9 = 0$ .
- 4. Solve the equation

$$\frac{4x-5}{3x-4} + \frac{x}{2x-1} = 2.$$

5. Solve the equations

$$2x + y + z = 2$$
.  
 $5x - 2y + 3z = -11$ .  
 $-7x + 3y - 2z = 5$ .

6. Solve the equations

$$x^2 + xy + y^2 = 19$$
$$x - y = 8.$$

- 7. A number consists of two digits whose sum is 12, and is such that its square is less than the square of the number formed by reversing the digits by 4752. Find the number.
- 8. Find the value of .7354 of £1 + .684 of £7 3s. 4d. + 2.472 of 3s. 6d.
- 9. Water is discharged at the rate of 1,000 gallons per minute from a reservoir of 5,400 sq. feet surface into one of 3,600 sq. feet surface. Find how many minutes it will take to diminish the difference between the levels by an inch.

[A cubic foot of water weighs 1,000 ounces, and a gallon of water 10 pounds.]

10. Find the change in income that results if £5,080 four per cent. Stock at 79½ is sold, and the proceeds invested in five per cent Stock at 95½.

LATIN.

MR. LUCE.

Translate: -

Purae rivus aquae, silvaque iugerum Paucorum, et segetis certa fides meae, Fulgentem imperio fertilis Africae Fallit sorte beatior.

Quamquam nec Calabrae mella ferunt apes, Nec Laestrygonia Bacchus in amphora Languescit mihi, nec pinguia Gallicis Crescunt vellera pascuis: Importuna tamen Pauperies abest; Nec, si plura velim, tu dare deneges. Contracto melius parva cupidine Vectigalia porrigam,

Quam si Mygdoniis regnum Alyattei Campis continuem. Multa petentibus Desunt multa. Bene est, cui Deus obtulit Parca, quod satis est, manu.

- 1. Parse :-velim, deneges, porrigam, continuem.
- 2. Give meaning of :- lintea, fistula, adorea, fasti.
- 3. Explain the scansion of any two of the lyric metres used by Horace.

### For Latin Composition.

After a three hours' halt Caesar gave orders that the march should be resumed. The cavalry were sent forward to secure the bridge-heads, and to act as a screen for the infantry. The infantry, though tired, made good progress, and by nightfall they reached the town of Glevum. There they encamped, and all precautions against surprise were taken. On the next day Caesar sent for the leading citzens and asked them why they had encouraged sedition and withheld supplies. He told them that unless they punished the guilty and gave security for their future good conduct, he would destroy the town and deport the inhabitants.

#### GREEK.

#### DR. GOLIGHER.

### I. Translate:-

ἐντεῦθεν ἐκκλησίαν ἐποίουν, εἰς ἡν ἡ βουλὴ εἰσήνεγκε τὴν ἑαυτῆς γνώμην, Καλλιξένου εἰπόντος τήνδε: Ἐπειδὴ τῶν τε κατηγορούντων κατὰ τῶν στρατηγῶν καὶ ἐκείνων ἀπολογουμένων ἐν τῆ προτέρᾳ ἐκκλησία ἀκηκόασι, διαψηφίσασθαι ᾿Αθηναίους ἄπαντας κατὰ φυλάς: θεῖναι δὲ εἰς τὴν φυλὴν ἐκάστην δύο ῦδρίας: ἐφ' ἐκάστη δὲ τῆ φυλῆ κήρυκα κηρύττειν, ὅτφ δοκοῦσιν ἀδικεῖν οἱ στρατηγοὶ οὐκ ἀνελόμενοι τοὺς νικήσαντας ἐν τῆ ναυιαχία, εἰς τὴν ψοτέραν ψηφίσασθαι, ὅτφ δὲ μή, εἰς τὴν ὑστέραν ὰν ἀρὸξωσιν ἀδικεῖν, θανάτφ ζημιῶσαι καὶ τοῖς ἔνδεκα παραδοῦναι καὶ τὰ χρήματα δημοσιεῦσαι, τό δ' ἐπιδέκατον τῆς θεοῦ εἰναι.— ΧΕΝΟΡΗΟΝ.

- Parse fully: εἰσήνεγκε, εἰπόντος, ὰκηκόασι, θεῖναι, ἀνελόμενοι, παραδοῦναι.
  - 3. What do you know of Mindarus, Hippocrates, Antiochus?
  - 4. Write a short life of Xenophon.

#### FRENCH AND GERMAN.

### PROFESSOR RUDMOSE-BROWN.

## I. Translate into English :-

Nous devons nous souvenir que la fin de la guerre ne sera point la fin de nos luttes, qu'elle sera l'aube, au contraire, d'une longue journée de travail. Au cours de cette journée, de belles carrières s'offriront à l'ardeur réveillée au fond des plus somnolents d'entre nous par le spectacle de tant d'héroïsme et de tant de beauté. Nous accepterons notre tâche comme les hommes de Verdun, de la Marne, ont accepté la leur, plus rude. Nous l'accepterons joyeusement, passionnément. Nous chercherons nos faiblesses pour y remédier, nous oublierons les futiles colères qui jetaient l'un contre l'autre les fils d'un même foyer, d'une même patrie; nous nous avouerons, enfin, sans les enfantillages périmés, que nous sommes les uns aux autres infiniment chers. Les Français s'aiment, ils l'ont prouvé. Ils ont su mourir, les uns pour les autres. Ils ont su mourir, avec amour, pour laisser aux petits qui ne sont pas encore nés une France puissante et belle.

Or.

Am Åbend dieses Tages erhielt Heinz die angelobte Strafe und am Nachtmittage des folgenden, als er zwischen den andern Schülern oben in des Pastors Studirzinmer sass, von Wohlehrwürden noch einen scharf gesalzenen Text dazu. Kaum aber war nach glücklich verflossener Stunde die unruhige Schaar die Treppe hinab und in den Garten hinausgestürmt, als der erlöste Mann von dorten unter seinem Fenster ein lautes Wehgeheul vernahm. "Ich will dich kliekern lehren! rief eine wüthende Knabenstimme, und wiederum erscholl das klägliche Geheul. Als aber der Pastor sein Fenster öffnete, sah er unten nur seinen fahlblonden Kostgänger, der ihm am Morgen Heinzens Missethat verrathen hatte, jetzt in eifriger Beschäftigung, mit seinem Schnupftuch sich das Blut von Mund und Nase abzutrocknen. Dass er selbst an jenem Spielwerk mitgeholfen hatte, fand er freilich sich nicht veranlasst zu verrathen; aber ebensowenig verrieth er jetzt, wer ihm den blutigen Denkzettel auf den Weg gegeben hatte.

### 2. Translate into French or German :-

Edward ordered a repast to be prepared in his tent for the prisoner, and he himself served at the royal captive's table as if he had been one of his retinue. He stood at the king's back during the meal: constantly refused to take a place at table, and declared that, being a subject, he was too well acquainted with the distance between his own rank and that of royal majesty to assume such freedom.

#### ENGLISH COMPOSITION.

#### MR. ALTON.

- 1. Scotch Soldiers of fortune.
- 2. Tennyson as a teacher and as a poet.

### JUNIOR FRESHMEN.

### GEOMETRY.

#### MR. H. THRIFT.

### THEORETICAL.

- 1. Prove that two parallelograms which are on the same base and between the same parallels are equal in area.
- 2. If a and b are linear magnitudes, a being greater than b, prove geometrically that  $(a + b)^2 + (a b)^2 = 2a^2 + 2b^2$ .
- 3. If one circle touch another circle internally, prove that the straight line which joins their centres passes through the point of contact.
- 4. On a given line describe a segment of a circle containing an angle equal to a given angle.
- 5. If the bisector of the vertical angle B of a triangle ABC meets the base in a point D, prove that AD:DC::AB:BC.
- 6. If two triangles have their sides proportional, prove that they are equiangular.
- 7. If four straight lines are in proportion, prove that a rectilineal figure described on the first is to a similar and similarly described figure on the second in the same ratio as a rectilineal figure on the third is to a similar and similarly described figure on the fourth.

### PRACTICAL.

No proof need be given, but the method of construction should be stated.

8. Describe a rectilineal figure ABCD having AB = 3 cms., BC = 4 cms., CD = 7.4 cms., AD = 3.5 cms., and BD = 5.6 cms.

Find its area.

- 9. Find a mean proportional between and a third proportional to two lines 7 and 5 cms. long.
- 10. Construct a regular hexagon having its sides  $2\frac{1}{2}$  inches long. Construct another regular hexagon whose area shall be half the area of the first.

#### ALGEBRA AND ARITHMETIC.

#### MR. FRASER.

1. Simplify the expression

$$\frac{10x-11}{3(x^2-1)}-\frac{10x-1}{3(x^2+x+1)}+\frac{x^2-2x+5}{(x^3-1)(x+1)}$$

2. Find the value of the expression

$$\frac{4y}{5}(y-x) - 35\left[\frac{3x+4y}{5} - \frac{1}{10}\left\{3x - \frac{5}{7}(7x - 4y)\right\}\right],$$

when  $x = -\frac{1}{2}$  and y = 2.

3. Solve the equation

$$\frac{x+3}{x-1} + \frac{x-4}{x-6} = 2.$$

- 4. Resolve  $x^1 + y^4 3x^2y^2$  into factors.
- 5. Solve the equation

$$\frac{x-2}{x-3} + \frac{3x-11}{x-4} = \frac{4x+13}{x+1}.$$

6. Find the square root of

- 7. If 7 men and 2 women earn £80 in 8 weeks, and 4 men and 3 women earn £83 8s. in 12 weeks, what are the weekly wages of a man and a woman?
- 8. Find the difference between the compound interest on £10,000 for 3 years at 4 per cent. according as the interest is payable yearly or half-yearly.
- 9. Goods are sold by A to B at a certain loss per cent., and by B to C at the same loss per cent.

C sells to A at the original price and gains 21 per cent. What was

the loss per cent, at which A sold?

10. What is the gross income of an estate, if after an income tax of  $2\frac{1}{2}$  per cent. and rates at 3s.  $6\frac{1}{2}d$ . in the £ are paid, the net income is £8809?

### TRIGONOMETRY.

### MR. HENRY.

- 1. A ship's funnel 25 feet high subtends an angle of 8 minutes at the eye of an observer on another ship. Find the distance apart of the two ships.
- 2. If  $\tan A = 5_1$ , what are the values of the other trigonometrical ratios of the angle A?
- 3. Prove the formula for  $\cos{(A+B)}$  when A lies between  $0^{\circ}$  and  $90^{\circ}$ , and A+B between  $90^{\circ}$  and  $180^{\circ}$ .
  - 4. Show that

$$\sin^2 A - \sin^2 B = \sin (A + B) \sin (A - B).$$

Find a general formula to include every angle whose tangent is
 1/2.

- 6. Prove that the sides of a triangle are proportional to the sines of opposite angles. What propositions of Euclid are included in this statement?
  - 7. Show that in the triangle ABC,

$$\frac{a-b}{a+b} = \tan \frac{A-B}{2} \tan \frac{C}{2}.$$

8. In the triangle ABC prove  $a = b \cos C + c \cos B$ . Write down two similar relations, and solve for  $\cos A$ ,  $\cos B$ ,  $\cos C$  from the three equations.

Why cannot we obtain a, b, c in terms of  $\cos A$ ,  $\cos B$ ,  $\cos C$ ?

- 9. Find the radius of the circle inscribed in the triangle whose sides are 5, 6, 7.
- 10. Show how to find the height above the ground of an object whose base is inaccessible.

#### LATIN.

### MR. JOHNSTON.

[Candidates should attempt either the Unprescribed Passage or the Latin Composition, but not both.]

### Unprescribed Passage.

Translate :-

Bella diu tenuere viros, erat aptior ensis Vomere, cedebat taurus arator equo; Sarcula cessabant, versique in pila ligones, Factaque de rastri pondere cassis erat. Gratia dis domuique tuae! religata catenis lam pridem vestro sub pede bella iacent. Sub iuga bos veniat, sub terras semen aratas; Pax Cererem nutrit, pacis alumna Ceres.

### For Latin Composition.

- 1. The soldier was killed by an arrow.
- 2. We shall work in order that we may become rich.
- 3. The general decided to pitch his camp on a hill.
- 4. Caesar, having conquered the Gauls, demanded hostages.
- 5. After this battle the Spartan commander sent a messenger to Sparta to tell the citizens that their good fortune had been lost, Mindarus slain, and that the soldiers were dying of starvation. Soon, however, Darius eent his younger son Cyrus to the coast to supply pay to the Spartan sailors. These then attacked the Athenians so suddenly that they easily beat them, and took the whole fleet. At length the Athenians, being compelled by famine, surrendered their city, and became allies of the Spartans.

### Translate:-

Hic lacrimis vitam damus et miserescimus ultro. Ipse vivo primus manicas atque arta levari Vincla inbet Priamus dictisque ita fatur amicis: 'Quisquis es (amissos hinc iam obliviscere Graios) Noster eris: mihique haec edissere vera roganti: Quo molem hanc immanis equi statuere? Quis auctor? Quidve petunt? Quae religio? Aut quae machina belli?' Dixerat. Ille dolis instructus et arte Pelasga Sustulit exutas vinclis ad sidera palmas: 'Vos aeterni ignes, et non violabile vestrum Testor numen,' ait, 'vos arae ensesque nefandi, Quos fugi, vittaeque deum, quas hostia gessi: Fas mihi Graiorum sacrata resolvere iura, Fas odisse viros atque omnia ferre sub auras, Si qua tegunt; teneor patriae nec legibus ullis. Tu modo promissis maneas servataque serves Troia fidem, si vera feram, si magna rependam.'

- I. Parse obliviscere, edissere, statuere, exutas, gessi, rependam.
- 2. Give the meanings of scalae, coluber, pullulat, thyrsos, galeros, cornipedes.
  - 3. What is a simile? Quote a simile from the Seventh Book.

#### GREEK.

### DR. GOLIGHER.

### I. Translate: -

ου γάρ Κυκλώπεσσι νέες πάρα μιλτοπάρηοι, 
ουδ' ἄνδρες νηῶν ἔνι τέκτονες, οἴ κε κάμοιεν 
νῆας ἐυσσέλμους, αἴ κεν τελέοιεν ἔκαστα 
ἄστε' ἐπ' ἀνθρώπων ἰκνεύμεναι, οἶά τε πολλὰ 
ἄνδρες ἐπ' ἀλθρώπων ἰκνεύμεναι, οἶά τε πολλὰ 
ἀνδρες ἐπ' ἀλλήλους νηυσὶν περόωσι θάλασσαν 
οἴ κέ σφιν καὶ νῆσον ἐυκτιμένην ἐκάμοντο. 
οὐ μὲν γάρ τι κακή γε, φέροι δέ κεν ὥρια πάντα 
ἔν μὲν γὰρ λειμώνες άλὸς πολιοῖο παρ' ὕχθας 
ὑδρηλοὶ μαλακοί μάλα κ' ἄφθιτοι ἄμπελοι εἶεν 
ἐν δ' ἀροσις λείη μάλα κεν βαθύ λήιον αἰεί 
εἰς ὥρας ἀμῷεν, ἐπεὶ μάλα πῖαρ ὑπ' οὐδας. 
ἐν δὲ λιμὴν ἐὐορμος, ἵν οὐ χρεὼ πείσματός ἐστιν, 
οὕτ' εὐνὰς βαλέειν οὕτε πρυμνήσι' ἀνάψαι, 
ἀλλ' ἐπικέλσαντας μεῖναι χρόνον, εἰς ὅ κε ναυτέων 
θυμὸς ἐποτρύνη καὶ ἐπιπνεύσωσιν ἀῆται.

HOMER.

2. Parse κάμοιεν, περόωσι, ἀμῷεν, βαλέειν, ἀνάψαι. Give the principal parts.

3. Write down the nominative singular and English of alyes, κατωρυχέεσσι, όρφ, γάλακτυς, φορτίδος.

### FRENCH AND GERMAN.

#### PROFESSOR RUDMOSE-BROWN.

### 1. Translate into English :-

Either-

Cette sévère leçon fit renoncer les Indiens à la pensée de recommencer leurs coups de main sur le fort Détroit. Mais Pontiac parvint encore à les persuader qu'il y avait un moyen bien plus sûr que ces infructueuses attaques par les armes de ruiner leurs ennemis, c'était d'établir un blocus impitoyable autour du fort.

Ce système mis en pratique avec une grande habileté et une audace incroyable fut, en effet, très préjudiciable à la garnison de Détroit. Presque tous les bâtiments qui apportaient des approvisionnements

furent capturés par les Indiens, et leurs équipages massacrés.

Depuis longtemps les troupes se trouvaient sans vivres frais, et la famine menaçait, lorsque apparut un schooner chargé de ravitaillements pour le fort. Ce bâtiment fut, comme les autres, vivement attaqué; mais, au moment d'être pris, il eut le bonheur de pouvoir gagner le large.

Or-

Zu Celle im Lande Lüneburg tat Eulenspiegel eine abenteuerliche Büberei. Als ihm der Herzog von Lüneburg das Land verboten hatte mit der Drohung, wenn er darin gefunden würde, sollte man ihn fangen

und hängen, so mied Eulenspiegel das Land doch nicht.

Er ging bei Celle in ein Dorf und wartete, bis der Herzog gen Celle ritte. Eulenspiegel hatte in Celle ein Pferd bekommen mit einem Sturzkarren. Nun sah er einen Bauern zu Acker gehen, den frug er, wem dieser Acker wäre. Da sprach der Bauer: "Er ist mein, ich hab' ihn ererbt." Da sprach Eulenspiegel, was er ihm geben solle für einen Schubkarren voll Erde von diesem Acker. Der Bauer sprach: "Einen Schilling nehm' ich dafür." Den gab ihm Eulenspiegel und warf den Schubkarren voll Erde von dem Acker und kroch hinein und fuhr an die Burg vor Celle an der Eller. Als nun der Herzog geritten kam, ward er Eulenspiegel gewahr, wie er auf dem Karren sass bis an die Schultern in der Erde.

### 2. Translate into French or German :-

Anyone who had seen him would have immediately put him down as a gentleman. His spotless suit, his well-polished shoes, his fine leather gloves were the mark of one who cared for his appearance. He wore a light grey hat with the air of one who has no cares. All this, moreover, without giving the impression that, once having put on his clothes, he gave another thought to them. He descended the steps of his club negligently, and hailing a taxi, ordered the driver to take him slowly up Park Lane and to stop at the Marble Arch.

# SENIOR FRESHMEN AND FINAL FRESHMAN SUPPLEMENTALISTS.

#### ALGEBRA AND ARITHMETIC.

#### MR. HENRY.

- 1. Find p and q such that  $x^4 + 3x^3 + 7x^2 + px + q = 0$  may be divisible without remainder by  $x^2 + x + 2$ .
  - 2. Solve the equations

$$\frac{5}{x} - \frac{1}{y} = 2$$
,  $\frac{3}{y} + \frac{8}{z} = 1$ ,  $\frac{2}{x} + \frac{1}{5z} = \frac{1}{2}$ .

3. If

$$\sqrt{31+4\sqrt{21}}=\sqrt{x}+\sqrt{y},$$

find x and y.

4. Given

$$x = \frac{y}{2} = \frac{z}{3} = \frac{w}{4}$$
 and  $x^2yzw^2 = \frac{1}{18}$ ,

find a value of x.

5. Resolve into factors

$$a(b^2-c^2)+b(c^2-a^2)-c(a^2-b^2).$$

- 6. A number consists of three digits, the difference between the first and third being 3. Prove that if these two be interchanged the number will be increased or diminished by 297.
- 7. Explain the following terms in arithmetic:—notation, numeration, prime number, irrational number, decimal fraction.
- 8. Define the least common multiple of two vulgar fractions, and find that of  $\frac{3}{2}$  and  $\frac{5}{2}$ .
- 9. What is the value of a £1 war savings certificate two years before it is payable, interest being reckoned at 5 per cent.?
- 10. Since the war a man finds that he can get a return of  $5\frac{1}{2}$ , instead of  $3\frac{1}{2}$ , per cent. on his capital. Upon this, his total income, he pays income tax at 6s., instead of 2s., in the £1. The cost of living has increased by 40 per cent. Is he better or worse off than before the war?

### TRIGONOMETRY.

#### MR. H. THRIFT.

1. A distant body subtends an angle of 32' 30" at the eye of the observer. If the diameter of the body is 2160 miles, what is its distance from the observer?

### SENIOR FRESHMEN AND FINAL FRESH, SUPPLEMENTALISTS. XCVII

- 2. Express all the other trigonometrical ratios of an angle in terms of its secant.
- 3. If  $\sin \alpha = \cdot 4$  and  $\cos \beta = \cdot 7$ , find to two places of decimals the value of  $\cos (\alpha + \beta)$ .
  - 4. If A+B+C=180, prove that  $\sin A + \sin B + \sin C = 4\cos\frac{A}{2}\cos\frac{B}{2}\cos\frac{C}{2}$
  - 5. Express  $\sin 2\theta$  and  $\cos 2\theta$  in terms of  $\tan \theta$ .
- 6. In a plane triangle assuming the formula for the cosine of an angle in terms of the sides, prove that

$$\tan\frac{A}{2} = \sqrt{\frac{(s-b)(s-c)}{s(s-a)}}.$$

- 7. Given two sides of a triangle and the angle opposite one of them, show how to solve the triangle. Under what conditions are there two solutions?
- 8. If the sides of a triangle are 26, 25, and 17 feet long, find its area and the radius of its circumcircle.
  - 9. Find  $\sin x$  from the equation 12  $\sin x + 5 \cos x = 13$ .
- 10. Given  $\log_{10} 2 = .3010$  and  $\log_{10} 3 = .4771$ , find  $\log_{3} 2$ , proving the theorem you make use of.

#### MECHANICS.

#### MR. WEBB.

### A .- For Final Freshman Supplementalists.

- 1. State and prove the principle known as the Triangle of Forces.
- 2. In a circular disk whose radius is 5 inches there is a circular hole of radius 2 inches whose centre is 3 inches from the centre of the disk. Find the position of the centre of gravity.
- 3. Forces of I, 3, 5, 6 lbs. act in order along the sides AB, BC, CD, DA of a square. Find the magnitude of the resultant, and the distance from A of its line of action.
- 4. Draw a sketch of any arrangement consisting of 4 movable pulleys with or without fixed ones. Find the mechanical advantage, and prove that the work done by the power in lifting the weight a given height is the same whatever the number of pulleys. You are to neglect the weight of the pulleys.
- 5. Prove that the sum of the moments of two intersecting forces about any point is equal to the moment of their resultant about the same point.
- 6. Find the acceleration, and the tension in the string, when a mass of 22 lbs. is drawn along a smooth horizontal table by a string which passes over a smooth pulley at the edge and is attached to a mass of 26 lbs. hanging freely. No formula other than P = mf is to be used,

- 7. A stone is thrown upwards at an angle to the horizon whose tangent is  $\frac{3}{4}$ , and with a velocity of 100 feet per second from the top of a wall 16 feet high. How far from the bottom of the wall will it strike the ground?
- 8. Give some of the reasons which compel us, in dynamics, to consider that difference between bodies which we call a difference of 'mass.' Show that the ratio of the masses of two bodies can be found by weighing both at the same place, and explain the need of the italicized words.
- 9. Find the H.P. of an engine which, by exerting a constant force, can generate a velocity of 40 miles per hour in a train of 200 tons mass within 3 minutes, the resistance of friction, &c., being considered constant, and equal to 20 lbs. weight per ton.

10. A mass of 43 lbs. is on a rough inclined plane whose height is 5

and whose length is 13. The coefficient of friction is 1/4.

Find with what acceleration it will move up the plane when acted on by a horizontal force equal to the weight of 38½ lbs.

### B .- For Senior Freshmen.

Candidates will answer the first five questions set for Final Freshmen
Supplementalists and the following:—

- 11. Find the horizontal force which will just drag a mass of 43 lbs. up a rough plane whose height is 5 and whose length is 13, the coefficient of friction being  $\frac{1}{4}$ .
- 12. A beam is 24 feet long and weighs 143 lbs. It rests on two props 2 feet distant from the ends, and supports weights of 11, 5, 4, 6, and  $8\frac{1}{2}$  lbs. at distances 0, 3, 11, 16, and 24 feet respectively from one end. Find the pressures on the props.
- 13. Prove that a couple and a force acting anywhere in the plane of the couple are always equivalent to a single force, and show how to get the line of action of this force.
- 14. Two weights each of 52 lbs. are supported by a string passing over two smooth pegs, A and B, 10 feet apart and on the same horizontal line.

A weight of 40 lbs. is then attached to the middle of the portion AB of the string. Find how far it descends before the new position of equilibrium is reached.

15. Describe the essentials of a good balance. If the error of a balance arises from one arm being slightly longer than the other, explain how the true weight of a body can be found by weighing it in each pan.

### LATIN.

### MR. ALTON.

Translate into Latin :-

- 1. When you are at Rome you ought to do what the Romans do.
- 2. I asked him what he wanted. 'Nothing,' he said, 'from my enemies: help from my friends.'

- 3. By daybreak Caesar had completed his arrangements, and the signal was given to break camp.
- 4. The two most powerful men in Rome were Caesar and Pompey. Caesar posed as champion of the popular party: Pompey had the support of the majority of the senators and nobles. These were beginning to fear that the conqueror of Gaul might become the King of Rome. It was necessary, therefore, to crush him without delay. But they did delay. Caesar, on the other hand, showed his usual rapidity of action. In the midst of their hesitation and deliberation the senators suddenly learned that Caesar had crossed the Rubicon and was marching on the city.

### (For Senior Freshmen.)

### Translate:-

Ch. At etiam maledicis? Sv. Immo, salvos quando quidem advenis, Di me perdant si te flocci facio an periisses prius. Ego ob hanc operam argentum accepi: te macto infortunio. Ceterum qui sis, qui non sis, floccum non interduim. Ibo ad illum, renuntiabo, qui mihi tris nummos dedit, Ut sciat se perdidisse. Ego abeo. Male vive et vale: Qui di te omnes advenientem peregre perdant, Charmides. Ch. Postquam ille hinc abiit, post loquendi libere

Videtur tempus venisse atque occasio. Iam dudum meum ille pectus pungit aculeus, Quid illi negoti fuerit ante aedis meas. Nam epistulae illae mihi concenturiant metum In corde et illut mille nummum, quam rem agat. Numquam edepol temere tinnit tintinnabulum: Nisi qui illut tractat aut movet, mutumst, tacet.

PLAUTUS.

From what Greek play did Plautus borrow the plot of the Trinummus?

- 2. Give the meaning of -graphicus, promus, sector zonarius, trapezita.
- 3. What is the Latin for 'checkmated,' 'make a tack,' 'first-class match'?

### (For Final Freshman Supplementalists.)

### Translate :-

Dixerat. Ille Iovis monitis immota tenebat Lumina et obnixus curam sub corde premebat. Tandem pauca refert: 'ego te, quae plurima fando Enumerare vales, numquam, Regina, negabo Promeritam; nec me meminisse pigebit Elissae, Dum memor ipse mei, dum spiritus hos regit artus. Pro re pauca loquar. Neque ego hanc abscondere furto Speravi, ne finge, fugam, nec coniugis umquam Praetendi taedas aut haec in foedera veni. Me si fata meis paterentur ducere vitam Auspiciis et sponte mea componere curas, Urbem Troianam primum dulcisque meorum Reliquias colerem, Priami tecta alta manerent, Et recidiva manu posuissem Pergama victis.

VIRGIL.

- I. Scan the first two lines.
- 2. Give the meaning of-chlamys, turioremus, bubo, formica, remex, cortina, hebetare, elephantus, limbus, dumus.
  - 3. How does Virgil refer to Theseus? to Marcellus? to Salmoneus?

#### GREEK.

#### MR. CANNING.

### (For Senior Freshmen.)

## Translate:---

φίλοι, γυναικός δαίμον' εὐτυχέστερον τοὐμοῦ νομίζω, καίπερ οὐ δοκοῦνθ' ὅμως: τῆς μὲν γὰρ οὐδὲν ἄκγος ἄψεταί ποτε, πολλῶν δὲ μόχθων εὐκλεῆς ἐπαύσατο. ἐγὰ δ', δν οὐ χρῆν ζῆν, παρεἰς τὸ μόρσιμον, λυπρὸν διάξω βίστον' ἄρτι μανθάνω. πῶς γὰρ δόμων τῶνδ' εἰσόδους ἀνέξοιαι; τίν' ἄν προσειπὼν, τοῦ δὲ προσρηθεὶς ὕπο, τερπνῆς τύχοιμ' ἄν εἰσόδου; ποῦ τρέψομαι; ἡ μὲν γὰρ ἔνδον ἐξελᾶ μ' ἐρημία, γυναικός εὐνὰς εὖτ' ἄν εἰσίδω κενὰς βρόνους τ' ἐν οἶσιν τζε, καὶ κατὰ στέγας αὐχμηρὸν οὖδας, τέκνα δ' ἀμφὶ γούνασι πίπτοντα κλαίη μητέρ', οἱ δὲ δὲσπότιν στένωσιν οἴαν ἐκ δόμων ἀπώλεσαν.

EURIPIDES.

- (a) Parse δαίμον', δοκοῦνθ', παρείς, διάξω, προσειπών, προσρηθείς, τυχοιμ', εξελβ, πίπτοντα, ἀπώλεσαν.
  - (b) Scan the first two lines.
  - (c) Give a brief account of the life and works of Euripides.

(For Final Freshman Supplementalists.)

Translate :-

δε οι γ' εν νηῶν ἀγύρι μήτηρ τε καὶ υίδε πολλὰ πρὸς ἀλλήλους ἔπεα πτερόεντ' ἀγόρευον. Τριν δ' ὅτρυνε Κρονίδης εἰς Ἰκιον ἰρήν. 'βάκ' Ἰδι Ἰτρι ταχεῖα' λιποῦσ' ἔδος Οὐλύμποιο ἄγγειλον Πριάμφ μεγαλήτορι Ἰλιον εἰσω λύσασθαι φίλον υίδν ἰόντ' ἐπὶ νῆας 'Αχαιῶν, δῶρα δ' 'Αχιλλῆι φερέμεν, τά κε θυμὸν ἰἡνη, οἰον, μηδέ τις ἄλλος ἄμα Τρώων ἴτω ἀνήρ. κήρυξ τίς οἱ ἔπουτο γεραίτερος, ὅς κ' ἰθύνοι ημιόνους καὶ ἄμαξαν ἐὐτροχον, ἡδὲ καὶ αὖτις νεκρὸν ἄγοι προτὶ ἄστυ, τὸν ἔκτανε δῖος 'Αχιλλεύς. μηδέ τί οἱ θάνατος μελέτω φρεσὶ μηδέ τι τάρβος τοῖον γάρ οἱ ποιπὸν δπάσσομεν ἀργεϊφόντην, δς ἄξει, εἴως κεν ἄγων 'Αχιλήι πελάσση. αυταρ ἐπὴν ἀγόγησιν ἔσω κλισίην 'Αχιλήος,

ούτ' αὐτὸς κτενέει ὰπό τ' ἄλλους πάντας ἐρύξει· οὕτε γάρ ἐστ' ἄφρων οὕτ' ἄσκοπος οὕτ' ἀλιτήμων, ὰλλὰ μάλ' ἐνδυκέως ἱκέτεω πεφιδήσεται ἀνδρός.'

Homer.

(a) Parse ἄτρυνε, ἴθι, λιποῦσ', φέρεμεν, ἴτω, ἔποιτο, ἄγοι, ἔκτανε, ἀγάγησιν.

(b) Scan the first two lines.

(c) State what you know of the Homeric controversy.

#### FRENCH.

#### PROFESSOR RUDMOSE-BROWN.

1. Translate into English :-

Il leva son pistolet. Je tombai par terre. Les deux autres s'approchèrent, plutôt qu'ils n'intervinrent, et tous les trois échangèrent à voix basse quelques paroles à la suite desquelles l'un d'eux, plaçant sans façon sa charge sur mes épaules: 'Yu!' cria-t-il. C'est ainsi que je me trouvais faire partie d'une expédition de contrebande. C'était pour la première fois de ma vie; je me suis depuis toujours arrangé pour que ce fût la dernière.

Il paraît que mon sort venait d'être décidé dans ce conseil secret, car ces hommes ne s'occupaient plus de moi. Ils marchaient en silence, portant tour à tour les deux charges restantes; ils ne pouvaient s'expliquer pourquoi j'avais marché avec circonspection et regardé autour de moi, alors que je devais encore me croire seul. Je leur donnai la clef de ce mystère en leur avouant l'apparition qui m'avait frappé

quand j'étais à considérer la flaque d'eau.

2. Translate into French :-

They started on a Friday, and, after a fast and pleasant crossing, reached the African coast, at a spot where there were no English cruisers to watch them. As soon as they had cast anchor, dealers boarded the ship. The famous African chief and slave-dealer, Tamango, had just brought to this place the slaves he wished to sell. The captain bought them all, and then captured the chief himself, and carried him off.

[N.B.—crossing, la traversée; cruiser, le croiseur; to watch, surveiller; to cast anchor, mouiller.]

### FINAL FRESHMAN EXAMINATION.

### ALGEBRA AND ARITHMETIC.

MR. WEBB.

1. Solve the equation

$$\frac{x-3}{6} - \frac{4x-21}{15} = \frac{x+1}{10}$$

and verify the answer.

- 2. If  $ap^2 + bp + c = 0$ , and  $aq^2 + oq + c = 0$ ; find the value of  $p^2 + q^2$  in terms of a, b, and c.
  - 3. Find x, y, and z from

$$2x + 3y + 4z = -4$$
  

$$3x + 6y + 7z = -6$$
  

$$3x + y + 2z = -1$$

- 4. Find to 2 places of decimals the two numbers which, when substituted for x in the expression  $7x^2 + 13x 3$ , will make the value of this expression zero.
  - 5. Find x and y from the equations

$$x^3 - y^3 = 218 x - y = 2$$

- 6. A man is paid at 10d. per hour for a 48-hour week, at 1s. 1d. per hour for overtime, and at 1s. 3d. per hour for Sunday work. In a certain week he works a total of 62 hours and earns £2 15s. 10d. How much Sunday work did he do?
  - 7. Define  $x^{\frac{p}{q}}$ . Using your definition, show that

$$x^{\frac{1}{2}} \times x^{\frac{1}{3}} = x^{\frac{5}{6}}.$$

- 8. If you bought to-day (June 27) one of the new £100 Victory Bonds for which you pay £85, and if you were so lucky as to have your bond drawn to be paid back at par on September 1st, 1920, how much per cent. per annum would this bonus of £15 be on your purchase money?
- 9. A man buys 2 qrs. 16 lbs. of tea at 3s. 1½ per lb., and mixes it with 6 qrs. 24 lbs. at 3s. 5½d. per lb. and sells the mixture at 4s. per lb. How much per cent. profit does he make? Give the answer to I decimal place.
  - 10. Calculate  $\sqrt{7} \div \sqrt{11}$  to 4 places of decimals.

#### TRIGONOMETRY.

### MR. ROGERS.

- 1. Given  $\sin A = \cdot 3$  and that A is an acute angle, find  $\cos A$  and  $\tan A$  to two places of decimals.
- 2. Given  $\sin A = \frac{P}{1}$ ,  $\cos B = \frac{20}{29}$ , find  $\sin (A + B)$ , assuming A and B are both acute.
- 3. If the diameter of a wheel is 30 inches, what length of the rim subtends an angle of 20° at the centre?
- 4. The top of a pillar subtends an angle of  $26^{\circ}$  34' at a point A, and an angle of  $48^{\circ}$  at a point B 100 feet nearer in the horizontal line to the base of the pillar. Find the height of the pillar to the nearest foot, given cot  $26^{\circ}$  34' = 2, cot  $48^{\circ} = 9$ .

5. Starting from the formula

$$a^2 = b^2 + e^2 - 2 be \cos A$$
,

express the area of a triangle in terms of the sides.

- 6. Two sides of a triangle are 5 and 2, and the included angle 110° 30'. Find the remaining side, given cos 69° 30' = 35.
  - 7. Find sin 18° in the form of a surd.
- 8. If the sides AB, BC, CD, DA, and the diagonal BD of a quadrilateral ABCD were given, how would you calculate the length of the diagonal AC?
  - 9. Find to two decimal places the numerical value of 10 log 5.43.
- 10. The sides of a triangle are 53, 42, and 35. Find the logarithm of the area, given from the tables:—

12 0792 23 3617 30 4771 65 8129

### LOGIC.

#### MR. KENNEDY.

- 1. Indicate the logical Subject, Predicate, and Copula of the following:-
  - (a) He jests at scars who never felt a wound.
  - (b) All is not gold that glitters.
  - (c) It cannot be said that he was careless.
  - (d) None but the brave deserve the fair.
  - (e) Not all these lies will bring success to their cause.
  - (f) Nothing is beautiful except truth.
  - 2. (a) What is meant by Quantification of the Predicate
- (b) 'In common language we sometimes quantify the predicate'; give some propositions as examples.
- 3. (a) Give the rules for immediate inference from Subcontrary Propositions.
  - (b) What is the peculiarity of Subcontrary Opposition?
- (c) Whether is it better to try to prove against an opponent a Contrary or a Contradictory? Give the reason for your answer.
  - (d What is meant by Ignoratio Elenchi?
- 4 (a) If the Middle Term is twice universal, show what may be inferred concerning the Syllogism.

(b) Examine the following Syllogism:

'All the trees in the park make a thick shade; this is one of them therefore this tree makes a thick shade.'

- 5. (a) What are the two invalid forms of Conditional Syllogisms? In words not symbols, give examples.
- (b) If it be allowable to reduce Conditional to Categorical Syllogisms, show what are the corresponding fallacies in the Categorical Syllogisms.
  - 6. Explain the nature of Inductive Reasoning.

#### MECHANICS.

### MR. FRY.

### Final Freshman Examination.

- t. A particle of mass 39 ozs. on a smooth inclined plane, 13 feet long and 5 feet high, is acted on by a force of 3 ozs. weight up the plane; find the additional force acting parallel to the base which will keep the particle in equilibrium, and find also the reaction of the plane.
- 2. Prove the method for getting the resultant of two like parallel orces.
- 3. A uniform beam 12 feet long weighing 90 lbs. is supported horizontally by props placed at distances of 3 and 8 feet from one end; find where a weight of 10 lbs. must be hung, so that the pressures on the props shall be equal.
- 4. With four pulleys make an arrangement in which, neglecting the weights of the pulleys, the power shall be to the weight lifted as 1 to 8. Taking each pulley to weigh 1 lb., find the weight lifted by a power of 10 lbs. weight, and show that the work done by the power is equal to the work done in lifting the pulleys and the weight, when the latter is lifted 2 feet.
- 5. A uniform ladder AC, 25 feet long, rests with the end A on a rough horizontal plane AB, and with the end C on a smooth vertical wall BC. If AB is 7 feet, find the least value of the coefficient of friction between the ladder and the horizontal plane so that equilibrium may be possible.
- 6. Find the force in pounds weight which will stop in 77 yards a mass of 1 ton moving with a velocity of 30 miles an hour.
- 7. Prove the formula for the retardation when a particle is moving up a smooth inclined plane.
- 8. A stone is projected so that the horizontal and vertical components of its initial velocity are 100 and 139 feet per second respectively. After what times will its resultant velocity be 125 feet per second? Find also the horizontal range.
- 9. Find the velocity with which a body of mass 2 lbs. must overtake a body of mass 10 lbs., moving in the same direction with a velocity of 80 feet per second, so that if they coalesce and form one body, its velocity shall be 100 feet per second. Find also the energy lost in foot-pounds.

10. Describe the way the force varies which makes a mass of 3 lbs. perform a complete harmonic oscillation of amplitude 5 feet in  $\frac{\pi}{4}$  seconds, and find its greatest value and the greatest value of the velocity during one complete oscillation.

Supplemental Senior Freshman Trinity Examination.

The first five questions set for the Final Freshman Examination and the following:—

- 6. Define work done, and prove that the work done by two forces is equal to the work done by their resultant.
- 7. Find the centre of gravity of a letter L, formed by four pieces cut from the same uniform wire, of lengths 8, 5, 1, and 2 inches.
  - 8. Prove that a couple and a force may be replaced by a single force.

#### LATIN.

### MR. SMYLY.

Translate into Latin :-

While they were at Smyrna, Brutus desired Cassius to let him have part of the great treasure that he had collected, because all his own was expended in furnishing out such a fleet of ships as was sufficient to give them command of the sea. But the friends of Cassius dissuaded him from this: 'for,' said they, 'it is not just that the money which you have saved with so much parsimony, and got with so much envy, should be given to him, to be disposed of in making himself popular, and gaining the favour of the soldiers.' Notwithstanding which, Cassius gave him a third part of all that he had; and then they parted each to their several commands.

### For Final Freshmen.

Translate: ---

Ergo iter inceptum peragunt fluvioque propinquant. Navita quos iam inde ut Stygia prospexit ab unda Per tacitum nemus ire pedemque advertere ripae. Sic prior adgreditur dictis, atque increpat ultro: Quisquis es, armatus qui nostra ad flumina tendis, Fare age, quid venias; iam istinc; et comprime gressum. Umbrarum hic locus est, Somni Noctisque soporae; Corpora viva nefas Stygia vectare carina. Nec vero Alciden me sum laetatus euntem Accepisse lacu, nec Thesea Pirithoumque, Dis quamquam geniti atque invicti viribus essent. Tartareum ille manu custodem in vincla petivit. Ipsius a solio regis, traxitque trementem; Hi dominam Ditis thalamo deducere adorti. Quae contra breviter fata est Amphrysia vates Nullae hic insidiae tales: absiste moveri:

Nec vim tela ferunt. Licet ingens ianitor antro Aeternum latrans exsangues terreat umbras Casta licet patrui servet Proserpina limen. Troius Aenas, pietate insignis et armis, Ad genitorem imas Erebi descendit ad umbras.

VIRGIL.

- 1. Parse: prospexit, fare, venias, adorti, absiste.
- 2. Translate and explain:-
  - (a) Euiadum veluti demens videt agmina Pentheus Et solem geminum et duplices se ostendere Thebas: Aut Agamemnonius scenis agitatus Orestes.
  - (b) Tergeminamque Hecaten, tria virginis ora Dianae.

### For Hilary Supplementalists.

Translate: -

Saepe maiores vestrum miseriti plebis Romanae decretis suis inopiae opitulati sunt: ac novissume memoria nostra, propter magnitudinem aeris alieni, volentibus omnibus bonis, argentum aere solutum est. Saepe ipsa plebes aut dominandi studio permota, aut superbia magistratuum, armata a patribus secessit. At nos non imperium neque divitias petimus; quarum rerum caussa bella atque certamina omnia inter mortalis sunt; sed libertatem, quam nemo bonus, nisi cum anima simul, amittit. Te atque Senatum obtestamur, consulatls miseris civibus; legis praesidium, quod iniquitas Praetoris eripuit, restituatis; neve eam necessitudinem imponatis, ut quaeramus, quonam modo, ulti maxime sanguinem nostrum, pereamus.—Sallust.

- 1. Parse: miseriti, amittit, miseris, consulatis, quaeramus.
- 2. What do you know about the life and writings of Sallust?
- 3. Explain: Darent operam consules ne quid respublica detrimenti caperet.

### For Trinity Supplementalists.

Translate :--

Abiit hercle ille. Ecquid audis, Lysiteles? Ego te volo.
Hic quoque hinc abiit. Stasime, restas solus: quid ego nunc agam
Nisi uti sarcinam constringam et clupeum ad dorsam adcommodem,
Fulmentas iubeam suppingi soccis? Non sisti potest.
Video caculam militarem me futurum hau longius.
Atque aliquem ad regem in saginam si erus se coniexit meus,
Credo ad summos bellatores acrem fugitorem fore,
Et capturum ibi spolia illum qui meo ero advorsus venerit.
Egomet autem quom extemplo arcum et pharetram et sagittas
sumpsero,

Cassidem in caput, dormibo placidule in tabernaculo.

Ad forum ibo: nudius sextus quoi talentum mutuom

Dedi reposcam, ut babeam mecum quod feram viaticum.

PLAUTUS

1. Parse: constringam, suppingi, sisti, reposcam, feram.

- 2. What do you know of the life and writings of Plautus?
- 3. What, according to the Prologue, was the Greek name of the Trinummus? Who was its author? What is the Latin for—'Plautus translated it into Latin. He called it Trinummus'?

### GREEK.

#### MR. ALTON.

Translate:-

ή δ' ἐπεὶ οὖν ἔμπνυτο καὶ ἐδ φρένα θυμὸς ἀγέρθη, ἀμβλήδην γοάωσα μετὰ Τρωβσιν ἔειπεν'

Έκτορ, ἐγὼ δύστηνος ἱβ ἄρα γιγνόμεθ' αἴση ἀμφότεροι, σὺ μὲν ἐν Τροίη Πριάμου κατὰ δῶμα, αὐτὰρ ἐγὼ Θήβησιν ὑπὸ Πλάκω ὑληέσση ἐν δόμω Ἡετίωνος, ὅ μ' ἔτρεφε τυτθὸν ἐοῦσαν, δύσμορος αἰνόμορον' ὡς μὴ ὡφελλε τεκέσθαι. νῦν δὲ σὺ μὲν ᾿Αΐδαο δόμους ὑπὸ κεύθεσί γαίης ἔρχεαι, αὐτὰρ ἐμὲ στυγερῷ ἐνὶ πένθεῖ λείπεις χήρην ἐν μεγάροισι' πάϊς δ' ἔτι νήπιος αὕτως, δν τέκομεν σύ τ' ἐγώ τε δυσάμμοροι' οὕτε σὺ τούτω ἔσσεαι, Έκτορ, ὅνειαρ, επεὶ θάνες, οὕτε σοὶ οῦτος. ἡν περ γὰρ πόλεμόν γε φύγη πολύδακρυν ὰχαιῶν, αἰεί τοι τούτω γε πόνος καὶ κήδε' ὀπίσσω ἔσσοντ' ἄλλοι γάρ οἱ ἀπουρίσσουσὶν ᾿Αρούνας. — Ηομεκ.

- I. Scan the last line.
- 2. Parse έρχεαι, τέκομεν, θάνες, φύγη, ἀπουρίσσουσιν.
- 3. Give the meanings of λαυκανίη, πέλεια, μόρφνος, ὅροφος, εὐτυπάς, φωριαμός, γλωχίς, βούβρωστις, δαήρ, ὄνθος.

### FRENCH AND GERMAN.

### PROFESSOR RUDMOSE-BROWN.

1. Translate into English :-

Either-

La femme n'insista point. Elle se mit à ranger les tables; le mari marchait de long en large dans la salle. Un moment après il ajouta:— Je dois bien quinze cents francs, moi! Il alla s'asseoir au coin de la cheminée, méditant, les pieds sur les cendres chaudes.

Thénardier alluma sa pipe et ajouta entre deux bouffées :- Tu remet-

tras la note à l'homme. Puis il sortit.

Il était à peine hors de la salle que le voyageur y entra.

La Thénardier lui tendit la note pliée.

L'homme déplia le papier, et le regarda; mais son attention était visiblement ailleurs.

-Madame, reprit-il, faites-vous de bonnes affaires ici?

0r-

### Morgenstunde hat Gold im Munde.

Es ist bekannt, dass noch immer ein Fragezeichen hinter diesem Sprichwort steht; woher stammt es? Wohl haben viele schon versucht, eine Lösung zu finden, es ist aber noch keinem gelungen, den wahren Ursprung aufzuweisen. Dem Sinne nach ist das Sprichwort zweifellos recht deutlich; es fragt sich aber, warum gerade der Mund genannt wird und nicht ein anderer Teil des menschlichen Körpers. Diese Frage gilt auch den Holländern, den Dänen und den Schweden, auch ihre Sprache hat dieses Sprichwort.

Onne jetzt alles zu wiederholen, was mit Bezug auf diese Frage schon

geschrieben ist, möchte ich eine Vermutung mitteilen.

Ich denke mir einen lateinischen Spruch, dessen Ühersetzung wir vor uns haben. Der spruch muss auf Lateinisch gelautet haben:

Aurora habet aurum in ore

und gibt eine Etymologie des Wortes Aurora, welche, sei sie nach unsern heutigen Begriffen auch falsch, dem sehr verwandt ist, was die Alten sich über die Herkunft des Wortes dachten.

2. Translate into French or German :-

There was but one statesman in the whole of English history that anyone expressed the least desire to see—Oliver Cromwell. 'There is one person,' said Lamb, 'whom I would rather see than all these—Don Quixote!' 'Come, come!' said Hunt; 'I thought that it had been agreed to exclude all heroes, real or fabulous.' Lamb proposed thereupon to add the name of Guy Fawkes. 'I would give something to see him sitting pale and emaciated, surrounded by his matches and his barrels of gunpowder, and awaiting the moment that was to transport him to Paradise!' They all burst out laughing.

#### ENGLISH COMPOSITION.

#### MR. R. M. GYWNN.

### (For Final Freshman Candidates.)

- 1. The Will Power of Richard III.
- 2. The Humourist and himself.
- 3. The Humourist and women.
- 4. The Victims of Richard.

### (For Hilary Supplementalists.)

- 1. The Englishman as a patriot, and the Englishman as an Empire-builder.
  - 2. The curse of good-nature.

### (For Trinity Supplementalists.)

- 1. Ordinary life as a test of character in the works of George Eliot.
- 2. The Army and Navy in 1685.

### JUNIOR SOPHISTERS.

#### MATHEMATICAL PHYSICS.

#### MR. W. E. THRIFT.

- 1. Prove the rule for finding the resultant of two unequal parallel forces acting on a body (a) if they act in the same direction, (b) if they act in opposite directions.
- 2. A pile of three blocks rests on a horizontal plane with their centres in the same vertical line and their longest sides parallel to one another. Find the height above the plane of the centre of gravity of the pile, if the blocks are respectively 8", 6", and 5" long, 5", 4", and 3" wide, and 3", 2", and 1" thick.
- 3. A mass of 112 lbs. is moving due E. with a velocity of 15 miles per hour. After a constant force has acted on it for 2 minutes it is found to be moving with a velocity of 30 miles per hour in a direction 30° E. of N. Find the direction and magnitude of the force.
- 4. A body is projected up a rough inclined plane with a velocity of 24 feet per second. Find how far it will move up the plane if the coefficient of friction is  $\frac{1}{3}$ , and the ratio of the height to the length of the plane is  $\frac{5}{13}$ .
- 5. State the laws determining the change in volume of a given quantity of gas (a) if its pressure changes, but its temperature remains constant, (b) if its temperature changes, but its pressure remains constant.

Prove the formula for calculating the volume of a gas under standard conditions if its volume at a known temperature and pressure be known.

- 6. An alloy is made of two metals, containing 6 parts by weight of one, and 4 parts of the other. If the densities of the metals are respectively 8.9 and 7.3, and that of the alloy is 8.3, determine the percentage alteration in volume that occurs.
- 7. A hydrometer has a uniform stem, and the divisions on the stem are equidistant. How would you proceed in order to determine the density of a liquid in which the hydrometer sinks to an observed division of the stem?
- 8. A parallel beam of light passes symmetrically through a prism. Prove the formula connecting D the deviation of the beam, A the angle of the prism, and  $\mu$  the index of refraction of the glass.
- 9. Two convex lenses of focal lengths 10" and 15" are placed in contact. An object is at a distance of 5" from them: find the position of the image of the object.
- 10. Explain how an upright magnified image of an object is formed by means of an opera-glass.

#### ASTRONOMY.

#### MR. WEBB.

1. Define the following terms:—'observer's celestial sphere,' 'celestial horizon,' 'zenith,' 'pole,' 'equator,' 'hour angle of a star.'

Prove that the celestial equator passes through the east and west points on the celestial horizon.

- 2. How is the distance of the Moon from the Earth determined?
- 3. How is the size of the Earth determined? Prove the main theorem involved.
- 4. Explain fully how you would use a celestial globe to find the length of the day at a given place on a given date. What more information would you need to state the hour of sunrise?
- 5. Write down Kepler's three Laws of Planetary Motion. Prove from the Third Law, by a numerical example, that the linear velocity along the orbit is greater for the inner of two planets.
- 6. You are supposed to be at the centre of the face of the Moon as seen from the Earth. Describe the apparent motion of the stars, of the Sun, and of the Earth as seen from this station, and also the phases of the Earth.
- 7. Explain the aberration of light. Draw a diagram of the observer's celestial sphere at about 45° N. latitude, and on it indicate the direction of the displacement due to aberration of a star which is in the zenith at midnight on the autumnal equinox.
- 8. At what hour mean local time at a place 40° W. will a star whose Right Ascension is 120° cross the meridian?

You are given that the R. A. of the mean sun at the preceding Greenwich mean noon was 30°.

### LATIN.

#### DR. GOLIGHER.

### [A.]

(Candidates should attempt either the Unprescribed Passage or the Composition.)

### Unprescribed Passage.

Translate :-

Dexagoridas et Gorgopas pari imperio praeerant urbi. Dexagoridas miserat ad legatum Romanum, traditurum se urbem; et cum ad eam rem tempus et ratio convenisset, a Gorgopa proditor interficitur, intentiusque ab uno urbs defendebatur; et difficilior facta oppugnatio erat, ni T. Quinctius cum quattuor millibus delectorum militum supervenisset. Is cum supercilio haud procul distantis tumuli ab urbe

instructam aciem ostendisset, et ex altera parte L. Quinctius ab operibus suis terra marique instaret, tum vero desperatio Gorgopam quoque coegit id consilii, quod in altero morte vindicaverat, capere, et pactus ut abducere inde milites quos praesidii causa habebat liceret, tradidit Quinctio urbem .- Livy.

### For Latin Trose.

I will consult my safety so far as I think becomes a prudent man, but not so far as to omit anything which I think becomes an honest one. As to personal attacks beyond the law, every man is liable to them; as for danger within the law, I am not guilty enough to fear any. For the good opinion of the world, I know it is not to be had; for that of worthy men, I hope I shall not forfeit it; for that of the great, or those in power, I may wish I had it; but if through misrepresentations (too common about persons in that station) I have it not, I shall be sorry, but not miserable, in the want of it.

### [B.]

I. Translate :-

Venit et Crispi iucunda senectus. Cuius erant mores qualis facundia, mite Ingenium. Maria ac terras populosque regenti Quis comes utilior, si clade et peste sub illa Saevitiam damnare et honestum adferre liceret Consilium? Sed quid violentius aure tyranni, Cum quo de pluviis aut aestibus aut nimboso Vere locuturi fatum pendebat amici? Ille igitur numquam derexit bracchia contra Torrentem, nec civis erat qui libera posset Verba animi proferre et vitam impendere vero. Sic multas hiemes atque octogensima vidit Solstitia, his armis illa quoque tectus in aula.

JUVENAL.

2. Translate and explain :--

(a) Altera quos nudo traducit Gallia talo.

(b) Semenstri digitos vatum circumligat auro.

Consumptis opibus vocem, Damasippe, locasti Sipario, clamosum ageres ut Phasma Catulli.

(d) Ergo ignominiam graviorem pertulit omni Vulnere cum Graccho iussus pugnare secutor.

3. How does Juvenal refer to-Lucan, Statius, Quintilian? What do you know of these writers?

### GREEK.

### MR. CANNING.

Translate :-

οὐ μὴν οὐδ' ἐκεῖνό γ' ὑμῶς ἀγνοεῖν δεῖ, ὧ ἄνδρες 'Αθηναῖοι, ὅτι ψήφισμα οὐδενὸς άξιον ἐστιν, ἀν μὴ προσγένηται τὸ ποιείν ἐθέλειν τά γε δόξαντα προθύμως ύμας. εί γαρ αὐτάρκη τὰ ψηφίσματα ην η ύμας ἀναγκάζειν & ποοσήκει πράττειν ή περί ὧν ἃν γραφή διαπράξασθαι, οὕτ' ἃν ὑμεῖς πολλὰ ψηφιζόμενοι μικρά, μᾶλλον δ' οὐδὲν ἐπράττετε τούτων, οὕτε Φιλιππος τοσοῦτον ὑβρίκει χρονον πάλαι γὰρ ἃν ἔνεκά γε ψηφισμάτων ἐδεδώκει καὶν. ἀλλ' οὐχ οὕτω ταῦτ' ἔχει τὸ γὰρ πράττειν τοῦ λέγειν καὶ χειροτονεῖν ὕστερον δν τῆ τάξει, πρότερον τῆ δυνάμει καὶ κρεῖττον ἐστίν. τοῦτ' οὖν δεῖ προσεῖναι, τὰ δ' ἄλλα ὑπάρχει καὶ γὰρ εἰπεῖν τὰ δέοντα παρ' ὑμῖν εἰσίν, ὧ ἄνδρες 'Αθηναῖοι, δυνάμενοι, καὶ γνῶναι πάντων ὑμεῖς οξύτατοι τὰ ἡηθέντα, καὶ πρᾶξαι δὲ δυνήσεσθε νῦν, ἐὰν ὀρθῶς ποιῆτε.— Demosthences.

- 1. Parse the following words in the preceding passage:—προσγένηται, προσήκει, γραφή, ὑβρίκει, ἐδεδώκει, προσείναι, εἰπεῖν, γνῶναι, ῥηθέντα, πρᾶξαι.
  - 2. Give a brief account of the policy of Demosthenes.

#### FRENCH AND GERMAN.

### FROFESSOR RUDMOSE-BROWN.

## 1. Translate into English :-

Either-

Ce grand cri de désespérance, il ne le pousse pas en son nom à lui, mais au nom de l'humanité entière dont les angoisses sont ses angoisses. C'est ce qui a fait dire à tort qu'il était un impassible : en réalité, nul poète, sauf Alfred de Vigny, n'a communié d'une âme à la fois plus tendue et plus frémissante avec l'universelle douleur. Comme chez Vigny, le pessimisme, chez Leconte de Lisle, se résout en un amour attendri et pitoyable pour 'les fugitives apparences de l'être.' Tout n'est qu'illusion, mais cette illusion se pare de couleurs séduisantes et sans cesse renouvelées qui valent d'être notées au passage. Le philosophe cède alors la place à l'artiste, et cet art est d'une magnifique puissance d'évocation, en même temps que d'une beauté, d'une plasticité de forme presque partout irréprochable. La poésie de Leconte de Lisle a le poli, l'éclat, la plénitude, la fermeté, parfois aussi la dureté du marbre, mais d'un marbre animé, tout vibrant de musiques intérieures, comme une statue de Memnon sur qui le soleil ne se coucherait jamais.

Or-

Dies unruhige Leben setzte bei ihm in dem Augenblicke ein, wo sich der Jingling zum Manne ausreifte, und der reifte sich sozusagen mit einem Ruck aus. Russlands grosser Dichter Puschkin, von Lermontov vergöttert, fiel im Duell. Er war das Opfer der aller Vernunft und Kultur hohnsprechenden Anschauungen und Gepflogenheiten der hohen und höchsten russischen Gesellschaftskreise geworden. Mit seiner Anklageode "Auf den Tod Alexander Puschkins" warf Lermontov diesen den Fehdehandschuh ins Gesicht. Jene waren mächtiger als der kleine 23jährige Leutnant und Poet; sie erlangten vom Zaren Nikolaus seine sofortige Versetzung nach dem Kaukasus. Das war im Jahre 1837, und zwischen diesem Jahr und seinem Todesjahr 1841 sieht man ihn nun eigentlich fortwährend unterwegs zwischen dem Kaukasus und Petersburg. Seiner bei Hofe sehr augesehenen Grossmutter gelang es,

den Zaren zur baldigen Rückberufung des "Schuldigen" zu bewegen. Aber kaum in Petersburg, wurden ihm sein Hochmut und sein Spötteln zum Verhängnis. Der französische Gesandte am russischen Hofe fühlte sich durch ihn verletzt und forderte ihn. Das Duell verlief zwar unblutig; Lermontov wurde jedoch wieder nach dem Kaukasus versetzt. Dann war er noch einmal auf kurzen Urlaub in Petersburg. Als er von diesem nach dem Kaukasus zurückkehrte, hatte er sehr bald aus ähnlichen Gründen ein neues Duell. In diesem fiel er am 15. Juli 1841, 27 Jahre alt.

2. Translate into French or German :-

'I thought,' said Ayrton, turning short round upon Lamb, 'that you of the Lake School did not like Pope?'—'Not like Pope! my dear sir, you must be under a mistake—I can read him over and over for ever!'—'Why, certainly, the Essay on Man must be allowed to be a masterpiece.'—'It may be so, but I seldom look into it.'—'Oh! then it's his Satires you admire?'—'No, not his Satires, but his friendly epistles and his compliments.'—'Compliments! I did not know he ever made any.'—'The finest,' said Lamb, 'that were ever paid by the wit of man.'

### EUROPEAN HISTORY.

### MR. CURTIS.

- 1. Discuss the causes and trace the course of the Italian Wars 1494-1525.
- 2. What various causes made the success of the Reformation in Germany 1521-55?
- 3. Estimate the greatness of Spain under Philip II. How do you account for its subsequent decline?
- 4. 'L'État c'est moi.' How did Louis XIV carry out this maxim of absolutism?
- 5. Discuss generally the relations of Prussia, Poland, and Russia from 1700 to 1795.
- 6. What do you consider were the fatal mistakes made by Napoleon throughout his career?
  - 7. Write on any two of these-

Belgium in 1600, 1713, 1815, and 1830. The office of Stadtholder. The navigation of the Scheldt. France as a colonial power. Alsace-Lorraine, 1648-1918.

# SENIOR SOPHISTERS AND SUPPLEMENTAL DEGREE EXAMINATION.

### MATHEMATICAL PHYSICS.

#### MR. WEBH.

- 1. A ladder is 13 feet long and weighs 60 lbs., and is placed with one end on a smooth floor and 5 feet from a smooth wall against which it leans. It is prevented from slipping by a rope connecting its lower end to the junction of floor and wall. A weight of 168 pounds rests on a rung one quarter way up. Find the tension of the rope.
- 2. A mass of 24 lbs. is just kept from slipping down a rough plane which rises 4 in 5 by means of two forces applied to it—one of 6 lbs. weight horizontally and one of 7 lbs. weight vertically upwards. Find the magnitude of the coefficient of friction.
- 3. A smooth inclined plane rises 9 feet in 25. A particle is sent sliding up it with a velocity of 48 feet per second. Where will it be at the end of 5 seconds, and how far altogether will it have travelled by then?
- 4. A lift is descending with an acceleration of 4 feet per second. What will be the pressure on the lift of a man weighing 12 stone? If this man jumps from the floor of the lift, will be be able to jump a greater or less height than if the lift were at rest?
- 5. How is change of velocity (and therefore acceleration) measured when the direction as well as the magnitude of the velocity is changing? Prove that the acceleration of a body which is moving uniformly round a circle is always directed towards the centre of the circle.
- 6. Give the properties of the ideal perfect liquid, and from them show that the free surface of such a liquid at rest under gravity is horizontal.
- 7. Two tanks have a common side in which is a rectangular hole 6 inches broad and 4 inches deep, closed by a movable partition. The tanks are filled with liquids of s.g. 3 and 5 respectively, so that the top of the hole is 2 feet 10 inches below the surface of each. What horizontal force must be applied to the partition to keep it in equilibrium?
- 8. 100 grammes of a gas are contained in a vessel at pressure 35 and temperature 42° Centigrade. The gas is cooled to 12° and is allowed to escape till the pressure is 29.5. How many grammes of gas remain?
- 9. A figure is drawn (as in Euclid I, 47) consisting of a right-angled triangle with squares on its three sides. Do not make the triangle isosceles. It is placed on the floor in front of a vertical plane mirror with the longest side parallel to the mirror. Draw the image.
- 10. Explain why an object immersed in water always appears nearer to the surface than it really is. In the case of looking vertically downwards at a small object, connect the real and apparent depths with the refractive index.

#### ASTRONOMY.

### MR. HARRY THRIFT.

### [Only seven questions need be attempted.]

- 1. Draw a diagram of the celestial sphere for an observer situated about the latitude of Dublin, and mark on it the declination, right ascension, celestial latitude and longitude of a star, defining these quantities.
  - 2. Describe how to set up and adjust a transit instrument.
- 3. Explain how to find the coefficient of refraction when the latitude of the place is known.
- 4. What are our reasons for thinking that the Moon has no sensible atmosphere? What explanations are given for the disappearance of air and water from the Moon?
- 5. Show how to find the angle which two distant places on the Earth's surface nearly in the same meridian subtend at the Moon, and hence show how to find the Moon's horizontal parallax.
  - 6. What do you know about Sun spots?
- 7. Explain the terms 'sidereal time,' 'mean solar time.' What is the sidereal time at 8 a.m. mean local time at a place  $60^\circ$  W. of Greenwich if the R. A. of the mean Sun at mean noon at Greenwich is 5h. 40m. 30s.?
- 8. What do we know about the motion of the solar system in space and how has our knowledge been obtained?
- 9. Explain how to determine your latitude at sea when the Sun is obscured at noon, but can be observed at intervals during the day.
- 10. Describe the slitless spectroscope, and point out its advantages and disadvantages compared with the ordinary spectroscope.

#### LATIN.

### MR. CANNING.

[All Candidates should attempt A or B, but not both.]

### [A.]

#### Translate:-

Age, ut a caelestibus rebus ad terrestres veniamus, quid est in his, in quo non naturae ratio intelligentis appareat? Principio eorum, quae gignuntur e terra, stirpes et stabilitatem dant iis quae sustinent, et ex terra succum trahunt, quo alantur ea quae radicibus continentur, obducunturque libro aut cortice trunci, quo sint a frigoribus et caloribus tutiores. Iam vero vites sic claviculis adminicula tamquam manibus apprehendunt, atque ita se erigunt ut animantes. Quin etiam a caulibus, si propter sati sint, ut a pestiferis et nocentibus refugere dicuntur nec eos ulla ex parte contingere. Animantium vero quanta varietas

est! quanta ad eam rem vis, ut in suo quaeque genere permaneant! Quarum aliae coriis tectae sunt, aliae villis vestitae, aliae spinis hirsutae; pluma alias, alias squama videmus obductus: alias esse cornibus armatas, alias habere effugia pennarum.— Стево.

[B.]

Translate into Latin :-

A few days before his death he seemed to be aware that he would not be long with us, but not so much from any decay or weakness of body, as from an instinctive impression that he was about to depart to his appointed rest. I well remember his giving me warning of this presentiment. It was on a glorious summer evening, and we were taking our usual walk, just as the sun was setting with unusual but mild brilliancy; he stood for a time and watched it in silence, and then 'I shall soon,' he said, 'follow; may I too set in light and not in clouds and darkness.' His mind remained as fresh as ever even to the last.

### (For Senior Sophisters.)

Translate:-

Est in Carpathio Neptuni gurgite vates Caeruleus Proteus, magnum qui piscibus aequor Et iuncto bipedum curru metitur equorum. Hic nunc Emathiae portus patriamque revisit Pallenen; hunc et Nymphae veneramur et ipse Grandaevus Nereus: novit namque omnia vates, Quae sint, quae fuerint, quae mox ventura trahantur; Quippe ita Neptuno visum est, immania cuius Armenta et turpis pascit sub gurgite phocas. Hic tibi, nate, prius vinclis capiendus, ut omnem Expediat morbi causam eventusque secundet. Nam sine vi non ulla dabit praecepta, neque illum Orando flectes; vim duram et vincula capto Tende; doli circum haec demum frangentur inanes. Ipsa ego te, medios cum sol accenderit aestus, Cum sitiunt herbae et pecori iam gratior umbra est, In secreta senis ducam, quo fessus ab undis Se recipit, facile ut somno adgrediare iacentem.

- 1. Parse—iuncto, metitur, trahantur, pascit, dabit, frangentur, accenderit, sitiunt, fessus, recipit.
  - 2. Write on Virgil as an observer of Nature.

(For Degree Candidates.)

Translate:-

Ut proficiscentem docui te saepe diuque, Augusto reddes signata volumina, Vini, Si validus, si lactus erit, si denique poscet; Ne studio nostri pecces odiumque libellis Sedulus importes opera vehemente minister. Si te forte meae gravis uret sarcina chartae, Abicito potius quam quo perferre iuberis Clitellas ferus impingas, Asinaeque paternum Cognomen vertas in risum et fabula fias. Viribus uteris per clivos, flumina, lamas. Victor propositi simul ac perveneris illuc, Sic positum servabis onus, ne forte sub ala Fasciculum portes librorum ut rusticus agnum, Ut vinosa glomus furtivae Pyrrhia lanae, Ut cum pilleolo soleas conviva tribulis. Ne vulgo narres te sudavisse ferendo Carmina, quae possint oculos auresque morari Caesaris, oratus multa prece nitere porro. Vade, vale, cave ne titubes mandataque frangas.

HORACE.

- 1. Parse-reddes, poscet, uret, impingas, uteris, frangas.
- 2. Write on Horace's Philosophy of Life.

### GREEK.

### MR. TATE.

### (For Senior Sophisters.)

Translate: -

δ δὲ Περικλῆς καταστρεψάμενος τὴν Σάμον ὡς ἐπανῆλθεν εἰς τὰς ᾿Αθήνας, ταφάς τε τῶν ἀποθανόντων κατὰ τὸν πόλεμον ἐνδόξους ἐποίησε καὶ τὸν λόγον εἰπών, ὥσπερ ἔθος ἐστίν, ἐπὶ τῶν σημάτων ἐθαυμαστώθη. καταβαίνοντα δ' αὐτὸν ἀπὸ τοῦ βήματος αἱ μὲν ἄλλαι γυναῖκες ἐδεξιοῦντο καὶ στεφάνοις ἀνέδουν καὶ ταινίαις ὥσπερ ἀθλητὴν νικηφόρον, ἡ δ' Ἐλπινίκη προσελθοῦσα πλησίον ''Ταῦτ''' ἔφη ''θαυμαστά, Περίκλεις, καὶ ἄξια στεφάνων, ὁς ἡμῖν πολλοὺς καὶ ἀγαθοὺς ἀπώλεσας πολίτας οὐ Φοίνιξι πολεμῶν οὐδὲ Μήδοις, ὥσπερ ούμὸς ἀδελφὸς Κίμων, ἀλλὰ σύμμαχον καὶ συγγενῆ πόλιν καταστρεφόμενος.'' ταῦτα τῆς 'Ελπινίκης λεγούσης ὁ Περικλῆς μειδιάσας ἀτρέμα λέγεται τὸ τοῦ 'Αρχιλόχου πρὸς αὐτὴν εἰπεῖν

οὐκ ὰν μύροισι γραθε ἐοθε' ἡλείφεο.

PLUTARCH.

- 1. Parse the following words: —καταστρεψάμενος, αποθανόντων, εθαυμαστώθη, ανέδουν, απώλεσας, μειδιάσας.
  - 2. Give the meanings of the following words: -

τορευταί, ἀπεγνωσμένος, χειροήθης, βωμολοχία, βασκαίνειν, δεισιδαιμονία, ἐχέγγυος, κηδεστής.

### (For Degree Candidates.)

Translate :-

τὰ μὲν δὴ λόγων πέρι ἐχέτω τέλος, τὸ δὲ λέξεως, ὡς ἐγὼ οἶμαι, μετὰ τοῦτο σκεπτέον, καὶ ἡμῖν ἄ τε λεκτέον καὶ ὡς λεκτέον παντελῶς ἐσκέψεται. κα ιὁ ᾿Αδείμαντος, Τοῦτο, ἢ δ᾽ ὕς, οὐ μανθάνω ὅ τι λέγεις. ἀλλὰ μέντοι, ἢν δ᾽ ἐγὼ, δεῖ γε. ἴσως οὖν τῆδε μᾶλλον εἴσει. ἆρ᾽ οὐ πάντα, ὅσα ὑπὸ

μυθολόγων ή ποιητών λέγεται, διήγησις οὖσα τυγχάνει ή γεγονότων ή δυτων ή μελλόντων; τί γάρ, ἔφη, ἄλλο; ἄρ' οὖν οὐχὶ ήτοι ἀπλῆ διηγήσε ή διὰ ὰμφότέρων περαφύνει; καὶ τοὖτο, ή δι δι, ἔτι δέομαι σαφέστερον μαθεῖν. γελοῖος, ήν δ' ἐγώ, ἔοικα διδάσκαλος εἶναι καὶ ἀσαφής. ὥσπερ οὖν οἱ ἀδύνατοι λέγειν, οὐ κατὰ ὅλον ὰλλ' ἀπολαβὼν μέρος τι πειράσομαί σοι ἐν τούτψ δηλώσαι ὅ βούλομαι. καί μοι εἰπέ ἐπίστασαι τῆς Ἰλιάδος τὰ πρώτα, ἐν οἶς ὁ ποιητής φησι τὸν μὲν Χρύσην δεῖσθαι τοῦ Ἁγαμέμνονος ἀπολῦσαι τὴν θυγατέρα, τὸν δὲ χαλεπαίνειν, τὸν δὲ, ἐπειδὴ οὐκ ἐτύγχανε, κατεύχεσθαι τῶν ᾿Αχαιῶν πρὸς τὸν θεόν; Ἔγωγε.—Ριλτο.

- 1. Parse the following words: εσκέψεται, είσει, γεγονότων, μαθείν, απολαβών, επίστασαι.
- 2. State clearly the difference pointed out by Plato between the qualifications necessary to make good doctors and good jurors, giving his reasons for establishing that difference.

### FRENCH AND GERMAN.

### PROFESSOR RUDMOSE-BROWN.

### 1. Translate into English :-

### Either,

Le dernier feu s'éteint sur la lande embrumee Plus de flamme aux carreaux, aux toits plus de fumée La flûte des crapauds vibre seule et la nuit Sous sa robe de crêpe endort ce faible bruit. Les étoiles ne sont pas encore allumées. Silencieusement, des brises embaumées Passent sur le sommeil des moissons et des bois. Une lueur surgit au faîte blanc des toits Et de taches d'argent sème la terre brune. Voici qu'à l'orient, là-bas, monte la lune.

Or.

Die Engländer, die heute erklären, sie seien keine Germanen, haben nicht ganz unrecht. Weit wichtiger als die Rasse ist für die Gesamtbeschaffenheit eines Volkes seine geschichtlich bedingte Kultur. Und die englische Kultur steht der unsrigen ziemlich fern. Mir scheint, gerade jezt beim Kriegsausbruch ist die innere Fremdheit zwischen Deutscheh und Engländern—zwischen Bethmann-Hollweg und Grey! besonders krass hervorgetreten.

Was uns trennt, ist Mehreres, darunter auch die verschiedene Einstellung zum Kniege. Die Engländer haben das Gefühl, nicht nur gegen die Deutschen, sondern zugleich gegen das Uebel des Knieges, gegen den verruchten "Militarismus" zu kämpfen (hieraus erklärt sich vielleicht im Tiefsten, dass sie so wenig wählerisch sind in den Mitteln der Kriegführung). Es hängt damit zusammen; dass der Engländer die Soldaten bezahlt, während der Deutsche selber Soldat ist: Zivil steht gegen Militär. Dies kommt, in weniger explosiven

Formen, auch im Frieden vor und innerhalb Deutschlands; da nehmen wir wohl meist für das Zivil Partei. Denn es ist eben Frieden. Jetzt liegt es anders. Im Kriege, und zumal in diesem Kriege, fühlen wir militärisch. Der Engländer aber (ausgenommen der Berufssoldat) misst auch den Krieg mit der Elle des Friedens. Er macht sich damit in unsern Augen lächerlich, während wir in seinen Augen schlechte Menschen sind (abgesehen von den vergewaltigten Edleren, die er unter uns annimmt).

2. Translate into French or German :-

I remember, as long ago as the year 1798, going to a neighbouring town and bringing home with me, at one proud swoop, a copy of Milton's Paradise Lost, and another of Burke's Reflections on the French Revolution—both which I have still; and I still recollect, when I see the covers, the pleasure with which I dipped into them as I returned with my double prize. I took a particular pride and pleasure in the latter work, and read it to myself and others for months afterwards. To understand an adversary is some praise; to admire him is more. I thought I did both: I knew I did one. If there are greater prosewriters than Burke, they either lie out of my course of study, or are beyond my sphere of comprehension.

### ETHICS AND PSYCHOLOGY.

[N.B.—Senior Sophisters are to answer the questions in section (A), and Degree candidates three questions in (B) with two questions in (A).

### MR. EXHAM,

### [A.]

I What different answers have been given to the question of the criterion of right and wrong? Give reasons for the answer which you prefer.

2. Trace briefly the descent of the Greek Ethical Schools from Socrates, explaining the names.

Give a short summary of the Ethics of Stoicism.

Note the best elements in Epicureanism.

3. What is the purpose of Plato's Republic?

Say what you know of Plato's views on Education.

Draw out the parallel between the perfect man and the perfect state.

4. How does Aristotle show the necessity of a science of Ethics?

Enumerate the characteristics of the chief good. How is the definition of Virtue developed?

Can Virtue be resolved into knowledge?

### [B.]

1. Explain the term 'Hedonism,' and note the various forms n which it has appeared from Hobbes to the present time, with a short criticism of each.

How would you classify the theories of Clarke, Butler, Hutcheson, Green?

2. How does Butler describe the relation between (a) Prudence and Virtue, (b) Self-Love and Benevolence, (c) the particular passions and Self-Love, (d) Religious belief and Morality, (e) the Right and the Natural?

On what does Conscience pass judgment?

What are the main duties prescribed by Conscience?

3. Note briefly the truth and the limitations of the ethical theory of Kant.

What does he mean by a 'Hypothetical Imperative'?

4. Write a short essay on the meaning and value of the principle of Self-Determination' as a guide in politics.

### POLITICAL AND ECONOMIC SCIENCE.

### MR. BASTABLE.

### [A.]

### [For Senior Sophisters only.]

1. State concisely the arguments for the establishment of a second chamber. In what different ways may such a body be constituted?

2. What is bimetallism? Notice the alleged advantages of international bimetallism, and the difficulties that have prevented its adoption.

3. 'The typical instrument for settling foreign payments is the bill of exchange.' Show clearly how this instrument is used in the adjustment of foreign trade, and indicate any circumstances that may affect its value.

### [B.]

### [ For all Candidates. ]

4. Compare the 'benefit' theory of taxation with the 'faculty' theory. Which is the more prominent in modern tax policy?

5. Specify the chief conditions of an effective federal system. Illustrate by reference to existing or historical examples.

6. 'A good despotism in a country at all advanced in civilization is more noxious than a bad one.' Explain fully the grounds on which this judgment is based. Under what conditions is despotism tolerable?

### [For Degree Candidates only.]

7. It has been claimed as a merit of cabinet government that 'it defines and concentrates ministerial responsibility.

Discuss the justice of this claim (a) in the case of the system before

the war, (b) in respect to the present system.

### SEN. SOPHISTERS AND SUPPLEMENTAL DEGREE EXAMINATION. CXX

- 8. What general principles govern the financial action of Parliament? Explain the following:—Consolidated Fund; Appropriation Act; Old Sinking Fund.
- 9. Examine the proposition that 'industry is limited by capital.' In what different forms is capital employed under modern industrial conditions?

Or,

Give a careful analysis of the elements of business profits.

### SPECIAL DEGREE EXAMINATION.

#### MATHEMATICAL PHYSICS.

#### MR. FRY.

- 1. Forces of 12, 4, 7, and 16 lbs. weight act along the sides AB, BC, CD, and DA, respectively, of a rectangle ABCD, in which AB = 6 inches, and BC = 4 inches. Find the magnitude of the resultant, and its perpendicular distance from A.
- 2. A uniform beam AB, 10 feet long, weighing 120 lbs., is free to turn about a smooth hinge at A. Find the horizontal force which acting at B shall keep the beam in equilibrium, with B 6 feet below the level of A. Find also the magnitude and direction of the reaction of the hinge at A.
- 3. Prove the formula for the retardation when a particle is moving up a rough inclined plane.
- 4. Find the horizontal and vertical components of the initial velocity with which a ball must be projected, so that the highest point of its path shall be distant 140 feet horizontally and 49 feet vertically from the point of projection.
- 5. A closed cubical box, 2 feet high, has an open pipe attached to it which rises to a height of 30 feet above the lid. When it is filled with water to the top of the pipe, find the resultant pressure due to the water on the bottom, on the lid, and on a vertical side of the box. To get the actual resultant pressures exerted by the water, what addition should be made to your results?
- 6. If 28.8 grammes of sugar, when coated with 2.7 grammes of wax of sp. gr. .9, weigh 10.5 grammes in water, find the sp. gr. of the sugar.
- 7. Prove the formula for the pressure of the air in the receiver of an exhausting air-pump, after n strokes.
- 8. Rays of light proceed from a point P in front of a convex mirror. Prove the formula for getting the position of the conjugate focus Q. What rays from P do you thus prove to proceed from Q after reflection?

- 9. Explain the phenomenon referred to as the total reflection of Light. What is the significance of the word total?
- 10. If a person can see objects distinctly which are at a distance greater than 24 inches from his eyes, find the greatest and least distance at which he can see objects distinctly when he uses convex spectacles of focal length 12 inches.

#### ASTRONOMY.

#### MR. FRASER.

- 1. State the most important characteristics of the Earth.
- 2. Write a short note on Hadley's Sextant, and explain how an observer at sea can obtain his latitude.
- 3. Give a clear explanation of the fact that an observer notes that the planets sometimes appear to move in opposite directions amongst the fixed stars, and at other times not to move at all.
  - 4. Write short notes on Halley's Comet and Encke's Comet.
    Explain what is meant by the term 'radiant point' in connexion
- 5. Explain how astronomers have determined a good approximation to the ratio of the Moon's mean distance from the Earth to the mean radius of the Earth.
- 6. When and how did astronomers discover that the propagation of light through space was not instantaneous?
  - (a) Explain what is meant by the term 'aberration.'
- (b) Prove the statement that 'aberration varies as the sine of the Earth's way.'
  - (c) Why is the aberration of the Moon an extremely small quantity?
- . Why is it generally assumed that neither air nor water exists in the

How is their disappearance explained?

8. Give a general explanation of Lunar and Solar Eclipses.

LATIN.

MR. LUCE.

[A.]

Translate into English:-

Ut proficiscentem docui te saepe diuque, Augusto reddes signata volumina, Vini, Si validus, si laetus erit, si denique poscet; Ne studio nostri pecces odiumque libellis Sedulus importes, opera vehemente minister. Si te forte meae gravis uret sarcina chartae, Abiicito potius, quam quo perferre iuberis Clitellas ferus impingas Asinaeque paternum Cognomen vertas in risum et fabula fias. Viribus uteris per clivos, flumina, lamas; Victor propositi simul ac perveneris illuc, Sic positum servabis onus, ne forte sub ala Fasciculum portes librorum, ut rusticus agnum, Ut vinosa glomus furtivae Pyrrhia lanae, Ut cum pileolo soleas conviva tribu; 8. Ne vulgo narres te sudavisse ferend Carmina, quae possint oculos auresque morari Caesaris; oratus multa prece, nitere porro. Vade, vale, cave ne titubes mandataque frangas.

- 1. Write a note on :-- (a) Epicuri de grege porcum.
  - (b) Spectatum satis et donatum iam rude quaeris.
  - (c) Virtus est medium vitiorum et utrinque reductum.
- 2. What do you know of :- Varius, Alcaeus, Empedoeles, Maecenas?
- 3. Summarize Horace's rules of literary style.

  Note.—B and C are alternatives.

5.7

[B.]

Translate into English :-

Apud Romanos haudquaquam tanta alacritas erat super caetera recentibus etiam territos prodigiis: nam et lupus intraverat castra laniatisque obviis ipse intactus evaserat, et examen apum in arbore praetorio imminente consederat. Quibus procuratis Scipio cum equitatu iaculatoribusque expeditis profectus ad castra hostium exque propinquo copias, quantae et cuius generis essent, speculandas, obvius fit Hannibali et ipsi cum equitibus ad exploranda circa loca progresso. Neutri alteros primo cernebant, densior deinde incessu tot hominum equorumque oriens pulvis signum propinquantium hostium fuit. Consistit utrumque agmen et ad proclium sese expediebant: Scipio iaculatores et Gallos equites in fronte locat, Romanos sociorumque quod roboris fuit in subsidiis: Hannibal frenatos equites in medium accipit, cornua Numidas firmat.

[C.]

Translate into Latin :--

The condition of the besieged, in the meantime, was forlorn in the extreme; not so much from want of food, though their supplies were scanty, as from excessive toil and exposure. Then it was that Coligni displayed all the strength of his character. He felt the importance of holding out as long as possible, that the nation might have time to breathe, as it were, and recover from the late disaster. He endeavoured to infuse his own spirit into the hearts of his soldiers, toiling with the meanest of them, and sharing all their privations. He cheered the desponding, by assuring them of speedy relief from their countrymen. Some he complimented for their bravery; others he flattered by asking their advice. He talked loudly of the resources at his command. If any should hear him so much as hint at a surrender, he gave them leave to tie him hand and foot, and throw him into the moat. If he should hear one of them talk of it, the admiral promised to do as much by him.

#### GREEK.

### DR. GOLIGHER.

### I. Translate:-

μάνθανε τοίνυν, ην δ' εγώ, ὅτι ταύτης αὐ εναντία γίγνεται, ὅταν τι τὰ τοῦ ποιητοῦ τὰ μεταξύ τῶν ρήσεων εξαιρῶν τὰ ἀμοιβαία καταλείπη αὶ τοῦτο, ἔφη, μανθάνω, ὅτι ἔστι τὸ περὶ τὰς τραγωδίας τοιοῦτον. ὁρ θότατα, ἔφην, ὑπέλαβες, καὶ οἶμαί σοι ήδη δηλοῦν δ ἔμπροσθεν οὐχ οἰό τ' ἦν, ὅτι τῆς ποιήσεώς τε καὶ μυθολογίας ἡ μὲν διά μιμήσεως ὅλη ἐστίν ἄσπερ σὺ λέγεις, τραγωδία τε καὶ κωμωδία, ἡ δὲ δὶ ἀπαγγελίας αὐτο τοῦ ποιητοῦ εὕροις δ' ὰν αὐτὴν μάλιστά που ἐν διθυσάμβοις ἡ ὰ δι δὶ ἀμφοτέρων ἔν τε τῆ τῶν ἐπῶν ποιήσει, πολλαχοῦ δὲ καὶ ἄλλοθι, ε μου μανθάνεις. 'Αλλὰ ξυνίημι, ἔφη, δ τότε ἐβούλου λέγειν. καὶ τὸ πρ τούτου δὴ ἀναμνήσθητι, ὅτι ἔφαμεν, & μὲν λεκτέον, ἤδη εἰρῆσθαι, ὡς δ λεκτέον, ἔτι σκεπτέον εἶναι. 'Αλλὰ μέμνημαι. τοῦτο τοίνυν αὐτὸ ἦν ἔλεγον ὅτι χρείη διομολογήσασθαι, πότερον ἐάσομεν τοὺς ποιητὰς μιμου μένους ἡμῖν τᾶς διηγήσεις ποιεῖσθαι, ἡ τὰ μὲν μιμουμένους, τὰ δὲ μή, κο ὁποῖα ἐκάτερα, ἡ οὐδὲ μιμεῖσθαι. -Ριλτο.

- 2. Parse and give the principal parts of —μάνθανε, καταλείπη, ὑπέλα βες, ἀναμνήσθητι, σκεπτέον.
- 3. What rules for the ideal state does Plato lay down with regard (a) songs, (b) gymnastic, (c) the selection of judges, (d) the duties of th rulers?

#### PSYCHOLOGY.

### MR. ROGERS.

1. What are the four theories mentioned by Höffding as to the relatio between Mind and Body?

Which is the best and why?

- 2. What is his classification of Psychological elements? Why do he insist that it is a classification of elements, not of states?
- Explain what is meant by saying that a perception is a fusion of sensation with a representation.
  - 4. How does Höffding criticize Hume's theory of the Ego?
  - 5. State and criticize Schopenhauer's theory of pleasure.
  - 6. Write a note on the consciousness of Will.

### ETHICS.

### MR. EXHAM.

 State and examine very briefly Plato's account of (a) the Sou (b) the Virtues, (c) Duty, (d) the relation between Ethics and Politic

2. Answer briefly each of the following from Aristotle's Ethics:
(a) why must there be a chief good, (b) what must be its characteristic
(c) what is the relation between Virtue and Knowledge, (d) between Virtue and Happiness, (c) what is implied in calling Virtue a Mean?

- 3. Note briefly the Ethical doctrines chiefly associated with the names of—Zeno, Epicurus, Hobbes, Shaftesbury, Bentham, Spencer, Kant.
- 4. Indicate the chief points at issue between Intuitionism and Utilitarianism, and say how much truth is to be found in either theory. In what various forms has Intuitionism appeared?
  - 5. Why has Bishop Butler been charged with Eelecticism? Note the chief points in his statement on the nature of Virtue.

Butler has done good work in exposing various fallacies popular and philosophical?

6. Examine the meaning, value, and limits of the principle of 'Self-Determination.'

Is any Ethical formula a sufficient guide? Give instances.

#### POLITICAL AND ECONOMIC SCIENCE.

#### MR. BASTABLE.

[Five questions to be selected; not more than Three to be taken from either section.]

#### SECTION A.

1. 'A completely popular government is pre-eminent in both the lepartments between which the excellence of a political constitution is livided.'

Explain this statement, and give the essential points of Mill's regument in support of the superiority of representative government.

- 2. Estimate the amount of truth in the assertion that 'the House of Commons no longer controls the Executive.' Illustrate by reference to asses in which the legislature has proved its power over the ministry.
- 3. Sketch briefly the development of the House of Lords as a egislative chamber. How are Ireland and Scotland represented in that louse?
- 4. What are the chief defects of local governing bodies? Consider he proper organization of such bodies.
- 5. Give some account of the schemes for proportional representation. What special evils are such schemes intended to remedy?

#### SECTION B.

- 6. Explain what is meant by 'elasticity of demand.' Can you state ny general rules with regard to the elasticity of demand for different classes of commodities and services?
- 7. Compare token currency with (a) inconvertible paper issues, b) bank money. How is the value of each of these forms of circulating nedium determined?
- 8. Trace the incidence of a house tax like that imposed under the existing system of local rates.

- 9. Specify the more important methods of industrial remuneration. How far does the *method* affect the *amount* of remuneration in the case of the lower grades of labour?
- \* 10. 'It is of the essence of capital to yield a revenue.' Consider carefully the different forms that may be taken by the return from capital. How does the yield of capital affect its growth?

#### EDUCATION.

#### MR. HENRY.

### [Answer four questions.]

- 1. Discuss briefly the philosophical ideas which influenced the educational thought of Froebel.
- 2. Examine the attacks made by Spencer and Huxley upon the traditional curriculum, and compare with contemporary criticism from a wilar standpoint.
- 3. 'The passage from the sound to the symbol is easier and more natural than that from the symbol to the sound.'

Consider from this point of view whether writing should be taught earlier than reading, and what use should be made of phonetics, in teaching the mother tongue.

4. 'Hand training is also brain training, but not vice versa.'

Discuss the physiological justification and bearing upon educational method of the above dictum.

- 5. Examine the function of the concept in making (a) language, (b) practical action possible. Sketch with examples the child's progress in forming concepts.
- 6. Analyse the educational value of (a) experimental geometry, (b) translation from English into Latin.
- 7. 'The punishments of Nature are too long delayed, they take no account of motive, they are not severe enough upon anti-social acts.' Examine this criticism of the doctrine of punishment by natural consequences.
- 8. Are educational ideals different (a) for individualism and socialism, (b) for aristocracy and democracy?

#### ENGLISH COMPOSITION.

#### MR. R. M. GWYNN.

Write an essay on one of the following subjects:-

- 1. The justification of British rule in India.
- 2. The loyalty of the Colonies.
- 3. Brutus as a friend and husband.
- 4. The populace as described by Shakespeare.

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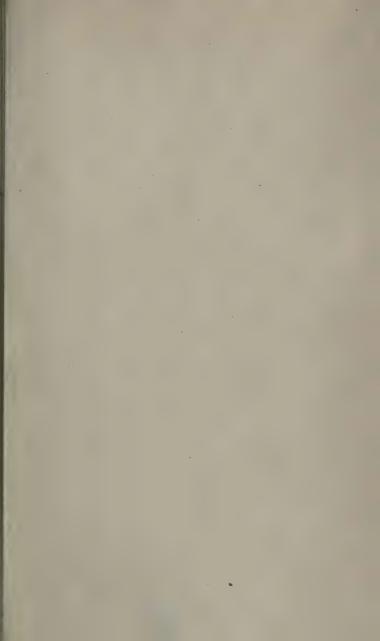
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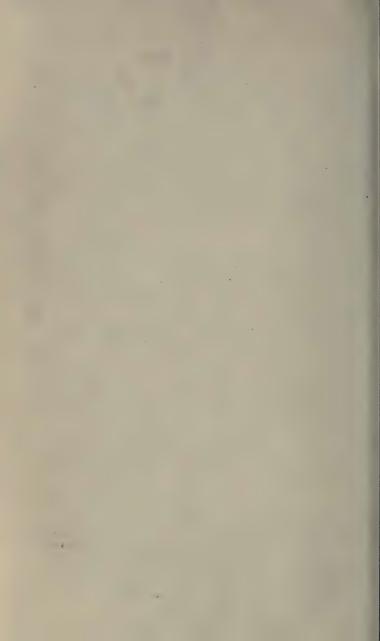
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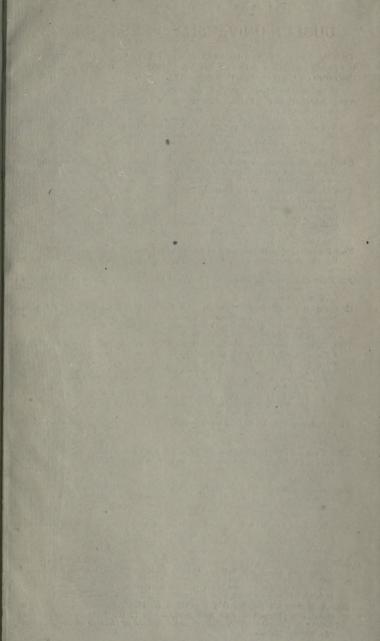
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